

Harvey Agnew, M.D.,
Editor



CANADIAN
HOSPITAL

March, 1939

Vol. 16

No. 3

New Pavilion of Hamilton Sanatorium Completes Building Projects

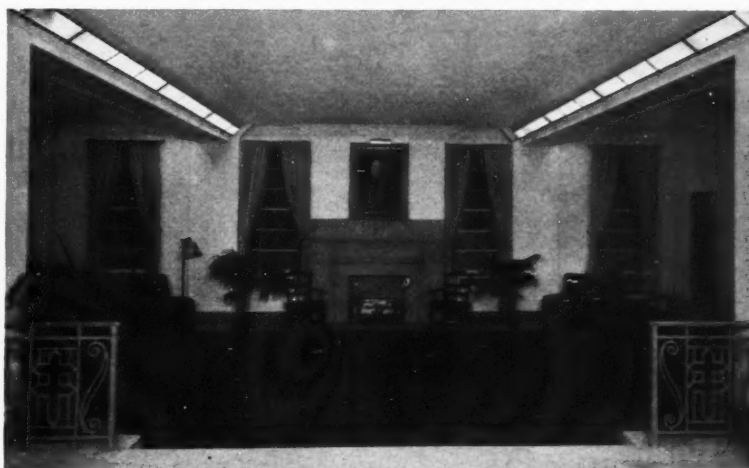
THE Mountain Sanatorium, established in 1906 as the first local sanatorium in Canada, was opened by His Excellency, Earl Grey, then Governor-General of Canada. The site, at the time of the opening, consisted of the farm house, which was undergoing alterations to constitute the staff house, and the farm barn. The Ladies' Auxiliary Board (which took the responsibility of administration until 1916) had appointed a physician-in-chief, a matron and a nurse. Two shacks were being constructed for treatment, but in June the first patients were accommodated in two tents that had been erected for their reception. It was a gallant beginning.

The Wilcox Pavilion, most recent of additions to the Sanatorium, and completely modern and fireproof, was formally opened in January by The Honourable Albert Mathews, Lieutenant-Governor of Ontario. Completely modern and fireproof, it replaces the frame pavilions in which patients have been housed, and brings the total accommodation to 650 beds. Its construction was made possible by the quarter million gift of the late Charles S. Wilcox, a Director of the Sanatorium. The generous bequest of the late Frank G. C. Fisher of Dundas, was used for the furnishing of the pavilion.

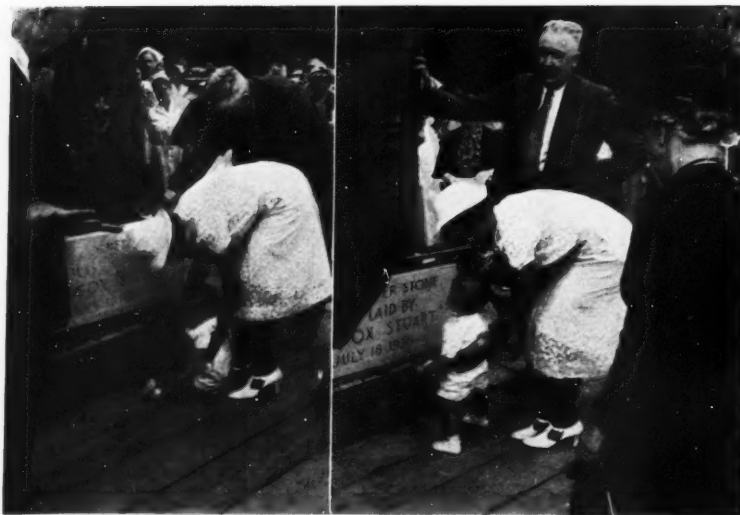
The new pavilion is a four-storey reinforced concrete structure, with brick outside walls. The exterior design was dictated more or less by the plan and the fact that three floors of open verandas had to be incorporated. The verandas are terminated at each end by a projecting bay which makes a completely balanced and formal design.

By the main entrance one passes through a vestibule and hall into a spacious public lobby, which will eventually be used as a waiting room. The floor of the lobby has been dropped below the level of the ground floor to give a more impressive ceiling height. From this reception room corridors extend to the ends of the building. On the left are the administration offices, an information and telephone office, all located at the front of the building. Two walls of the information and telephone office are of plate glass so that the reception clerk can supervise the

lobby and entrance. At the back of the building to the left are public toilet rooms for men and women, a dispensary and dormitory for temporary interns. The extreme left, back and front, is given over to medical staff accommodation: seven bedrooms, a study, living-room and toilet facilities. At the right of the entrance is a chart room with private offices for three doctors, also a dark



Reception Room, Wilcox Pavilion,
Mountain Sanatorium.



Wilcox Stuart, grandson of the late Mr. C. S. Wilcox, who "took the controls" at the laying of the corner stone of the Wilcox Pavilion.

room for the examination of X-ray film; beyond this is the physiotherapy department, and the assembly hall. The assembly hall, which can be divided in two by means of folding doors, has at one end a revolving stage carrying two altars, one for the use of Protestants, the other for Roman Catholics. At the right of the lobby are storage rooms, dietitians' office and the Samaritan Club library. There is, in addition, a passenger elevator and space for future installation of a freight elevator.

The three upper floors are duplicates except for the difference in the depth of the wards at the front of the building. This difference is caused by the step back design which allows the formation of a balcony or veranda wide enough to take care of patients' beds without having a complete overhang which would cut off a great deal of sunlight.

The three ward floors are divided lengthwise by wide corridors. In the front of the building there are nine wards, those on the upper two floors having four beds each and those on the second floor having six beds each. At each end of the floors are two double rooms and four single rooms. The rear half of each floor is given over entirely to utility rooms. In the centre of each floor is a nurses' station flanked by a diet kitchen and elevator on one side and linen room and doctors' examination room and treatment room on the other. At each end of this space are duplicate sets of sink rooms, utility rooms, locker rooms and toilet rooms.

At each end of the building an aluminum sanitary clothes chute, with access doors in every utility room, has been installed. In the centre of the building, off the service corridor, is

located the flue of the incinerator with hoppers on each floor. Two staircases, one at each end of the corridor, connect all floors.

All floors and staircases are terrazzo, laid in squares with aluminum dividing strips. In the corridors, however, a two-colour scheme has been carried out—a dark green border on a warm yellow field. The ceilings of all corridors and certain utility rooms have been treated with acoustical plaster to reduce the effect of noise. All corridors have six foot tile wainscots of a light green with sanitary covered base. Wards, single and double rooms have a low tile base, while utility rooms have a tile dado of varying height depending on the intended use of the room.

In all patients' rooms there are separate lights over each bed and below this light a plate having a call system signal and selective radio receptacle and utility receptacle. There is, too, a fan mounted in the centre of each room. All electrical switches are of the silent mercury type.

The building is heated by low pressure steam in induction type heaters in sanitary cabinets. The steam for the heating system is brought to the building at high pressure and reduced inside the building itself.

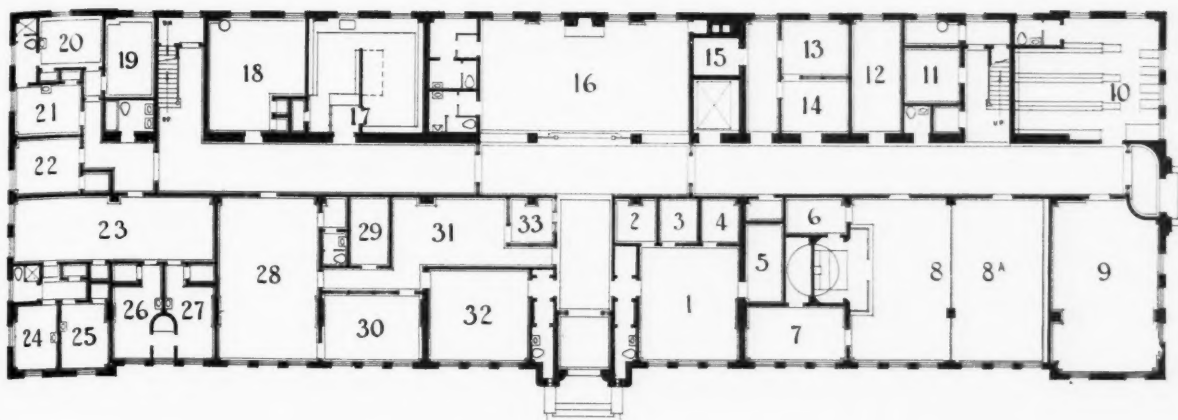
Hutton & Souter were architects, W. H. Cooper Construction Company, Ltd., contractors.

I have yet to encounter that common myth of weak men, an insurmountable barrier.

—James Lane Allen.



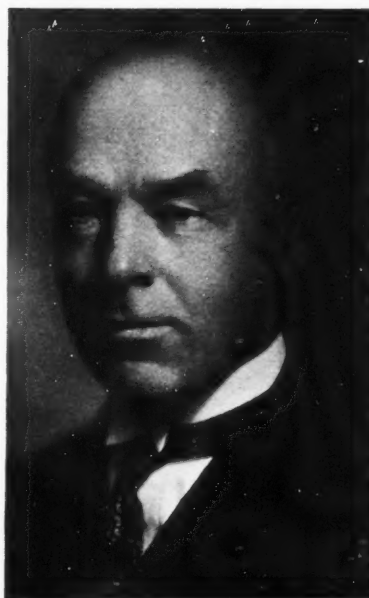
One of the four-bed wards decorated at Christmas.



Ground Floor Plan of the Wilcox Pavilion.

Key to Ground Floor Plan—

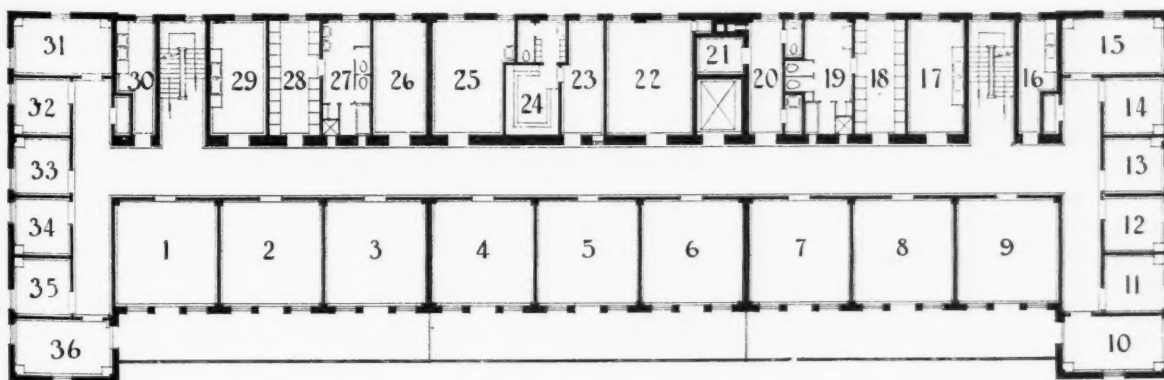
1. Chart Room
- 2, 3 and 4. Doctors' Private Offices
5. Dark Room
6. Sacristy
7. Teacher's Room
8. Teachers' Study
- 8a. Doctors' Library
9. Physiotherapy
10. Samaritan Club Library
- 11 and 12. Storage Rooms
- 13 and 14. Dietitians' Office
15. Storage and future freight elevator
16. Lobby
17. Dispensary
18. Dormitory
19. Study
- 20, 21 and 22. Doctors' Bedrooms
23. Living Room
- 24, 25, 26 and 27. Doctors' Bedrooms
28. Medical Superintendent's Office.
29. Storage
30. Medical Superintendent's Secretary's Office
31. General Office
32. Superintendent of Nurses' Office
33. Information.



Dr. J. H. Holbrook,
Medical Superintendent, Mountain
Sanatorium.

Key to Typical Floor Plan—

- 1-9. Wards
10. Double Room
- 11, 12, 13 and 14. Single Rooms
15. Double Room
16. Single Room
17. Utility Room
18. Locker Room
19. Toilet Room
20. Service Corridor
21. Storage and future freight elevator
22. Diet Kitchen
23. Nurses' Station
24. Linen
25. Doctors' Examination Room
26. Treatment Room
27. Toilet Room
28. Locker Room
29. Utility Room
30. Sink Room
31. Double Room
- 32, 33, 34 and 35. Single Rooms
36. Double Room.



Typical Floor Plan of the Wilcox Pavilion.



ABOVE—
*Architect's Sketch of the
Wilcox Pavilion.*



LEFT—
*Utility Room at the
Pavilion.*

*Views of Wilcox
Pavilion,
Mountain Sanatorium*

*There are two Locker
Rooms on each ward floor
for the patients' use.*



The Salesman Through the Eyes of an Administrator

By One Who Has Been on Both Sides of the Desk

By CARL I. FLATH,

Superintendent, Wellesley Hospital, Toronto

(Mr. Carl Flath was himself a successful salesman and advertiser for several years. In the following address, which was delivered by invitation to the sales staff of a large organization, he describes types of salesmen which the reader will readily recognize. This address received so much favourable comment that it was requested for publication.—Ed.)

THERE are few *good* salesmen. This conclusion is based on my contacts with salesmen as purchaser and because of personal experience in the field of selling. My early selling experience was in the advertising sales department of the old Toronto Globe. At that time we faced strong competition against other Toronto dailies with much larger circulations, so in order to have any success, it was found necessary to make up in service what we lacked in circulation. I mean that we gave our clients a consulting service beyond our regular function of advertising salesmen. We made it our business to dig into the customer's whole problem of sales and endeavoured to work out a solution for it. Involved, was thorough study of the whole problem, careful search for a solution, and intelligent application of the solution.

It is true that this called for a tremendous amount of work, far beyond what our competitors were called on to do, but I might say that unless our selling had been done in this way we simply couldn't have given space away in the face of competition. What I learned from that experience will remain with me the rest of my life. It illustrated the demand for a carefully thought out approach to, and the importance of intelligent study of the whole problem before the sale (solution) itself was attempted. That could be called the basic law of selling, though the same logic will apply to any field of endeavour.

In every sale the prospect should be visualized as an individual problem requiring individual study. It is the salesman who comes in with a solution to a problem, or at least exhibiting that he has given some thought to the individual or organization he is about to sell, who gets earnest attention, without which he might just as well have stayed out in his car. So, I think it is sound advice to say "Don't sell for the sake of the sale only—go out looking for *problems to solve* with your product or service and you will find the whole world waiting for you." In this same vein—a product should never be put on the market until a complete market analysis has been made showing that there is a definite need for it. There are too many competitive products now, and little money is being made out of any of them. Therefore, from a manufacturing standpoint, unless you are positive that you have a better product than your competitor, or one equally as good for less money, or that you have sound reasons for believing that the market will be better served by your product—leave it alone, for you are doomed to failure, or at best mediocre success.

The Buyer's Standpoint

Now to talk from the buyer's standpoint. First get clear on this—buyers and administrators are ordinary individuals just as human as any one of you. They have worries, are sometimes happy and sometimes unhappy, are sometimes good natured and sometimes crabby. They like a good time (some of them) just like any of you, and are not, as some salesmen would believe, a special breed of individual brought into the world to harass salesmen. So, if you will think straight about the buyer and get on his level, you will have accomplished a great deal; forget that bowing and scraping; be courteous, but don't overdo it. Remember, you are just as deserving of respect as is the buyer, and his position does not give him any license to be discourteous to you. Actually, the buyer should thank the salesman for his call. I try to see every salesman every time he calls, if only to say "hello", because I feel I owe him something for spending his time coming to see me. More than that, my best source of current information is that group of regular salesmen who come to see me from day to day. Some of them are not worth a darn, but as a group I find it worthwhile to know them all.

Some Daily Vignettes



Supposing you picture yourself for a little while on my side of the desk, which means on the buyer's side of the desk in any hospital, and we'll start the morning off just as many do.

The Prologue: Walking into the office, we meet the engineer who stands there looking very glum and says, "The generator burned out", or "The boiler feed pump is 'shot'." A few minutes later the superintendent of nurses comes in to inform us that the patient in No. 33 jumped out the window last night, breaking both legs, and is threatening to sue the hospital—his lawyer is downstairs now. In the mail comes the auditor's monthly statement showing another loss of \$5,000—slightly exaggerated? Yes, but they illustrate a point, and if an administrator sometimes seems sharp, or if he says that he cannot see you to-day, keep in mind that there probably is a very good reason for it and you should not go away feeling that he is just an inconsiderate so-and-so, but be thankful for his not seeing you when perhaps he was in a bad frame of mind.



Scene 1. (Enter Salesman No. 1—"The Confidential Salesman".) Deliver me from the confidential salesman, the fellow who is always letting you in on a bargain!! He came to you first so that you could "get your share before anyone else". Bologney!!! Maybe some people believe him, but as a buyer I am sure you would not believe *in* him, and consequently you would not feel disposed to buy *from* him.

(Salesman No. 1, the "Confidential Salesman" backs out without an order.)

Scene 2. (Enter Salesman No. 2—the "Salesman who just thought he'd drop in", or "just happened to be in the vicinity".) Let me tell you that it is practically suicidal to act as if your time were of no particular value. From a buyer's standpoint it keeps him from taking you seriously and respecting you, for if you, in so many words, tell him that you have spent no time preparing for his call, you can't blame him for not giving you much time.

Scene 3. (Enter Salesman No. 3—"The Salesman Who Does Not Know His Product".) Why in the name of conscience firms persist in sending out salesmen to cover the trade with no more equipment than a brief case and a few samples is beyond my understanding. I have had salesmen come to me who knew absolutely nothing about their product, except that it had a name and they were selling it.

I am thinking of one chap who came in a few weeks ago, and, twisting his hat to an almost unrecognizable mass, said that he was selling mineral oil. I asked him "Whom do you represent?" "Well-I-I", he said, "We're in the crude oil business and we're just taking this on as a side-line, and I thought that hospitals would use it, so I came to see you". I questioned him where it was refined and other details as to its fitness for medicinal use, but he didn't know any more about it than the fact that he was told it was mineral oil and hospitals used it. Such a fellow has absolutely no chance with purchasing agents who know what every article is expected to do and are full of questions as to its ability to solve a particular problem. This poor salesman is simply fighting a losing game and if his company would only stop to think about it, they are doing themselves harm by having such a poorly equipped individual represent them, moreover an injustice is being done the salesman.

From my experience both as a buyer and seller, were I a salesmanager, I would have every salesman turn in questions asked about our products, accompanied by their best answers to these questions and no salesman would leave the office until he could answer correctly every one of them. It may sound incredible when I tell you that over 25% of the salesmen who call on me can't give prices without calling the office—that over 60% of them cannot tell me anything about the actual production of their products; this is a fact, and I have kept records which show it.

Into this general classification falls the product with a freakish name. The latest one coming to my attention was called "Superplus". Not even Houdini could guess what that was. "Superplus"—it means nothing but a gross

exaggeration. Great care should be exercised in the choice of name for a product. This should suggest the intended use of the product or at least tie-in with the name of the company producing it.



Scene 4. (Enter Salesman No. 4. Ennui Personified.) A paper salesman weaves into the office and slumps into a chair, absolutely bored with the world about him and the job he has to do. He sighs, and says, "Well-I-I, how's your paper to-day," "Oh! it's alright? Well-I-I, we've got a special offer on such-and-such a thing", and, with a yawn, "I thought you might be interested."

Unfortunately, any interest that his "special offer" might have aroused has been absolutely throttled by the fellow's manner, and unless he was giving away gold bricks he would never get a rise out of me.

Scene 5. (Enter the "Negative Salesman".) He has called every Wednesday morning at 10.15 for years, and every Wednesday morning at 10.16 he asks the same question, using the same words in the same tone of voice "I don't suppose you want any — this morning", and when I say, "No, I'm sorry", he looks as if he has lost his last friend, and sighing, says, at 10.17 a.m. "well, I'll see you next week". Again the criticism can be laid on the doorstep of the house who sent this fellow out to the trade. He doesn't know how to sell and never will, though he may pick up enough business through sympathy and persistence to get by.

Scene 6. A few minutes later the counterpart of this last mentioned "would-be" salesman bounces in. You look up at him—he beams—and though you would like to have bitten your tongue for doing it, you ask "Well, what are you selling now?" This fellow has called probably ten times, each time selling a new product—insecticides, floor wax, printing, paint, paper, and a half dozen other things, and with the same line of superlatives tries to make you believe that *this* is the very last word.



Scene 7. (Enter the "Talkative Fellow".) Well sir, this chap is just the essence of happiness and joy. He beams and shakes your hand and opens wide his coat, sits down, offers a cigarette and, in a loud voice, asks "Have you heard this one?" He has probably told the same story a hundred times, but at its conclusion practically rolls on the floor. Then he asks you "How's business?" "How's the wife?" "How's the family?" "How's the car running?" and talks about everything but his product until, twenty or thirty minutes later, after you have risen three or four times to give him the hint, he turns to leave and says, "By the way, what kind of shape are your soap chips in?" What a stupid question—a soap chip might be in any shape. So, after being told that they are in pretty good shape, he leaves with a great bustle and a loud "Well, see you later, old man!!" Old Man!!! Now, I'm neither his old man nor his pal—in fact I am probably by now one of his worst enemies.



Scene 8. (Enter the salesman who "Can't Take It".) When the going gets tough he brings along the salesmanager to "gang" you. Guard against this custom, for it is unsound and generally resented. This salesman may have been conscientiously working on the problem and might possibly have picked up the order on that very call, but most buyers, should they be about to place an order, will not do so when the salesmanager is

along. Such practice is quite unfair to the buyer, for the sales attempt usually develops into nothing short of a ganging attack; when one of them misses a point the other picks it up and before long the purchaser is running for cover; this is a bad thing for all concerned. It is important, however, for a sales director to drop in periodically on regular customers simply as a courteous gesture, for during such informal calls both purchaser and sales director are likely to learn much for their mutual benefit.

Scene 9. (Enter "The Salesman who has first seen "Miss So-and-So", or "Dr. So-and-So", and says that he or she "wants such-and-such a product".) A clever salesman endowed with more than ordinary tact might get this over without offending, but let me caution you against *going over the buyer's head*. It's dangerous business. Play ball with him if you want him to play ball with you. Flatter him by seeing him first and ask his permission to go to the others—that's only courtesy and it always pays.



Scene 10. (Enter the fellow who "Knows Someone on the Board".) He is probably the most obnoxious of all. Gentlemen, if you know someone on the board, keep quiet about it, for there is no surer way of losing an order than to say you know so-and-so on the board.

Scene 11. Last in the morning comes the "Shabby Salesman". His hair needs cutting, he needs a shave, his collar and sleeves are frayed, his tie is twisted, he wears a "gravy vest", and his shoes usually need shining. Now, here is the representative of a supposedly progressive company, but I at once picture his company being as slovenly in its business

methods as he is in his appearance. From the buyer's standpoint, the company is only the length and shadow of their representatives.

The Constructive Side

In the final analysis, constructive, thoughtful selling is the only consistently productive selling. *You must know thoroughly your product, your market, and the specific problem you are about to attack.*

Suppose you are about to sell me a ready made dressing programme—you should set out my hospital as a problem on which you should begin to develop records; you should learn something about present procedures; ascertain where we buy and how much is being spent on bulk supplies; how these bulk supplies are made up, salaries paid to help used for this purpose, etc., etc., and you should endeavour to visit the department where the work is being done. All this may take months, but, like a lawyer, you are compiling evidence.

Then, from all available sources find out the experiences of other hospitals of like size in similar change-overs. Line up your facts on the experience of others—costs involved, results achieved, and savings or improvements in service resulting.

When you have all your ammunition ready, look it over carefully in the light of your prospective customer, then after conscientious, and I do mean *conscientious* study, if you feel that you have a solution to his problem, go after him for all you're worth. Get him to call a nursing staff conference to discuss the matter; talk to them; get their reaction; ascertain their names and feed them direct mail on prepared dressings and keep it up until you win out. Don't expect success over-night. These things cannot be decided in a hurry. There are many factors to be taken into consideration and you will generally find that the hospital which changes slowly makes a success of the change.

Conclusion

Selling is the easiest job I know of, if you don't know *how* to sell, but it is probably the most difficult work I can think of, if you know *how* to sell and practice what you know. Every salesman of surgical and medical equipment has a very definite place in the great programme of better care for the sick; on each one of you rests a responsibility—make the most of it for yourself and the field you serve.

N. S. and P. E. I. and N. B. Hospital Associations to Hold Joint Sessions

On the recommendation of a joint committee composed of members of both associations, the Nova Scotia and Prince Edward Island and New Brunswick Hospital Associations plan to hold united sessions at the 1939 annual meetings in June. The associations will meet at Amherst, Nova Scotia, and joint sessions will be held on the second day. The transactions of the joint committee, which met after the combined hospital session last year at Halifax, have since then been approved by the executive bodies of the two associations. Members of the committee agreed that the associations should meet on the same days in 1939, and that, if possible, they should meet somewhere

near the interprovincial boundary. Joint sessions were advocated for part of the meeting, particularly for that portion dealing with the scientific program. The committee also recommended that joint meetings be held for the alternate years, while in 1940 and other even years, the two associations should meet separately at which time the choice of location might be one of the more distant centres not well adapted for the joint meetings. Final recommendation was that there should be an effort to have the two associations hold the joint meeting in 1941 under some conjoint title, such as "The Maritime Hospital Federation". For all other purposes, however, the associations, for the time at least, would remain distinct.

"Flying Doctors" In Australia

By DR. J. McF. ROSSELL,

Councillor of the Australian Aerial Medical Services (N.S.W. Section)

THE request for some notes on the Australian Aerial Medical Services is considered a compliment to this Dominion, and I will attempt to set down some facts which may interest our Canadian colleagues.

The idea of medical aid travelling by air was first carried into effect by that great Superintendent of the Australian Inland Mission, John Flynn ("Flynn of the Inland"). On his long patrols in the Central and Northern parts of Australia he realized the need for medical attention to the isolated settlers, the telegraph operators, the police on their long travels, station managers and many other people in the "outback", to say nothing of the numerous aborigines inhabiting these districts. Under Flynn's guidance, this Mission established "Hostels" in 1912 which were staffed by two trained nurses, and thirteen of these are now scattered about the lonely parts of the continent. There have also been built welfare huts, after the style known during the Great War.

In 1928 the first "Flying Doctor" service was inaugurated, having its base at Cloncurry in Northwest Queensland. For some years before this, experiments had been going on to perfect a cheap wireless receiving and transmitting set which would be simple in operation. In 1929 such sets were installed, and they proved so efficient that there are now many in use throughout the length and breadth of the Continent. They are called "Transceivers" and they cost about £70:0:0 each. The power for transmitting is produced by a generator worked by foot-power through cycle pedals. They are virtually invaluable in connection with the "flying doctor's" work, as telephones are few and far between where the doctor is most needed.

As the writer's experience has mostly been gained at this Cloncurry centre, perhaps it would be best to describe the conditions existing there in 1934, and which obtain at the moment. This service, with a satellite base at Croydon which commenced last year, is still carried on by the Australian Inland Mission (A.I.M.); but later bases established at Wyndham and Port Hedland in Western Australia, and at Broken Hill in New South Wales, are conducted by an organization known as the Australian Aerial Medical Services, which is a Commonwealth-wide body. It is a public association whose units comprise the Country Women's Association, the Rotary Club, British Medical Association, various Aero Clubs, The University, and the Wireless Institute, and it enjoys both Federal and State Government assistance. Each of these bases serves an area having a radius of about 350 miles, so that when the proposed service at Alice Springs, in the centre of the Continent, is inaugurated, the whole of that part of Australia which was previously without adequate medical service will be covered.

The success of the work depends almost entirely on the wireless organization. The "Mother Station" is located in

a town with good hospital facilities, as many cases need transportation to hospital. The service rendered is more than merely first-aid treatment; it attempts to give the very best in medical care.

The medical work in such a service can be compared with a country general practice, excepting that one flies to the patient and is called-up by radio. The "Mother Station" is in daily contact with some forty or fifty pedal "Transceivers", and any one of these may want advice about the many illnesses and emergencies which occur with special frequency on a cattle station in the tropics. At one moment one may be speaking (and almost all the work is now done by wireless telephony, although until recently it was by Morse telegraphy) to a police station 700 miles south-west, and the next to an island 400 miles away, off the coast of northern Australia. The conditions treated by advice over the air range from a fractured leg to gastro-enteritis, and from malaria to pneumonia. This method of advising treatment of a fracture of the shaft of the tibia may appear at first sight fantastic, but when one realizes that the patient's wife is a trained nurse, that the homestead is about 700 miles from the base, and that the flying country in between had been described as "impossible", the practicability of the system becomes apparent. The patient's wife had splints made under my instructions and, with the man under morphia, she reduced the fracture in which there was apparently little displacement. I was in touch with her daily for some weeks and continued to keep the patient "under my care" until he returned to his work among the cattle again. Such things happen frequently in this "practice" and there is no lack of interest in the work. In the cattle country around the Gulf of Carpentaria there are many serious accidents, and within a few months I saw five fractures of the skull, mostly due to accidents with horses or bullocks: such cases are transported to the base, where they receive adequate hospital attention.

One feature of transportation by air is the comfort in which the patient travels. He may be brought to the aeroplane over a rough road by motor truck, where every yard of the journey is painful, but as soon as the aeroplane leaves the ground he is more comfortable than under any other form of travel. The type of machine most used is the English "Fox Moth", the fuselage of which is modified to take a stretcher. The cabin holds, besides the doctor, another patient or passenger.

On longer trips, the wireless operator from the "Mother Station", or his assistant, usually accompanies the doctor with a portable pedal "transceiver", and he is thus able to keep in touch with the base whilst in the air. One instance of the value of this occurred when I was on a trip of 600 miles. A message sent from the "hostel" where the patient was, to the base station, was sent on to us whilst in the air, and I ordered urgent treatment which carried the

(Continued on page 86)

Putting Brain Waves on Paper

Diagnosing Brain Tumors by Electroencephalography

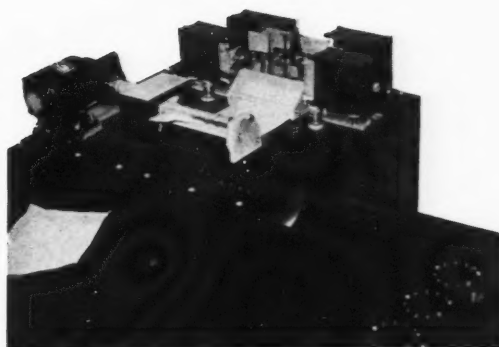
COMPLICATED apparatus for the recording of electrical impulses in the human brain has just been installed in the Toronto General Hospital. The equipment, which was designed and built by the Department of Medical Research of the University of Toronto, is the result of investigation and experiments carried on in that department for over two years. The new installation is a joint project of the Departments of Medicine, Neuro-Surgery and Medical Research, in an effort to study brain abnormalities more intensely, and to assist where possible in diagnosis. Already it has been used to isolate and localize brain tumors, and it has "discovered" mild forms of epilepsy, hitherto undetectable, in a number of patients.

Several rooms adjoining the brain surgery department of the Toronto General Hospital have been set aside for this particular work on "brain waves"—scientifically termed electroencephalography. The room in which the apparatus is housed is shielded against all electrical interference. Contact with the patient is provided by small

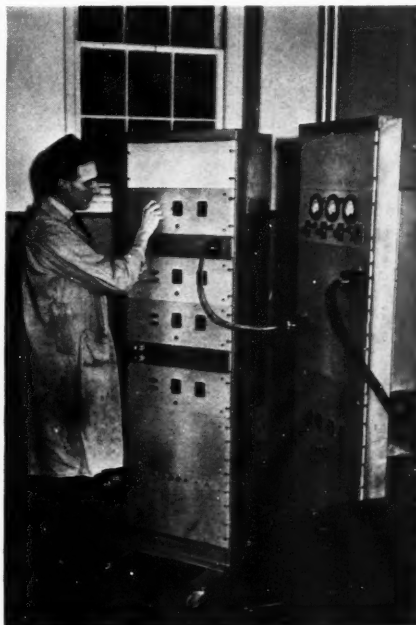
silver electrodes which are attached with collodion to different parts of the head. The electrical reactions of the brain are recorded by an ink-writing oscillograph and the study of this graph in the light of normal graphs provides the information required.

Electroencephalography is as yet a very young science. It was only in 1924 that Berger in Germany discovered that active brain cells generating minute electrical impulses could be detected from the scalp—a fact which was confirmed by Adrain at Cambridge ten years later. From 1934 study and experiments have been carried on at Harvard University and other centres. In 1935, the Department of Medical Research of the University of Toronto began a study of electroencephalography. Since then the work has been carried on in conjunction with the Toronto General Hospital and with the co-operation of The Hospital for Sick Children and The Psychiatric Hospital.

There is no more miserable human being than one in whom nothing is habitual but indecision.—*William James.*

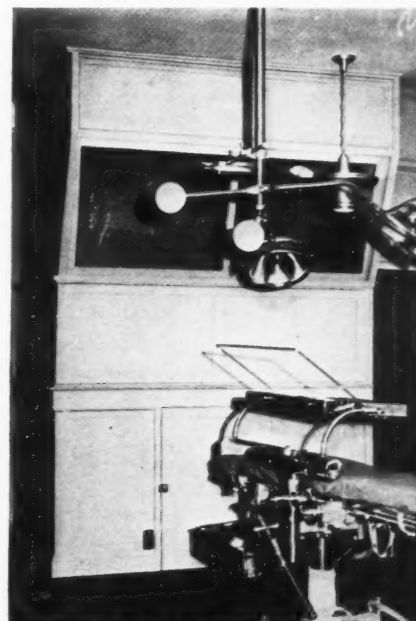


The moving chart records the electrical impulses coming from the brain.



LEFT—

Amplifiers for the brain waves.



RIGHT—

Recording gallery behind operating table.

Shall Nurses Give Intravenous Salines?

By R. A. SEYMOUR, M.D.,

Assistant Superintendent, Vancouver General Hospital



THE use of intravenous therapy is of many years standing, but has increased steadily until now even very large well-equipped hospitals find it difficult to keep pace with this growth. This present discussion applies only to the *intravenous administration of saline and glucose* and to the specific problem of whether or not a nurse should give this treatment instead of an intern. The increase in the number of these injections has been so marked that in this hospital it is becoming a major problem to provide the nursing and intern service required. This is a problem facing many hospitals to-day as a result of modern treatment in many medical and surgical conditions. Leading hospitals, through their medical staffs, advance newer treatments and, with present day rapid intercommunication, the smaller hospitals are quick to follow. This routine treatment is vitally necessary, contributing frequently to life-saving measures and certainly hastening convalescence. If only from an economic viewpoint, the cost is saved in lessened hospital days.

All readers of this article are probably familiar with the length of time it takes to give 1000 c.c. of normal saline and the preparation necessary for this procedure. From the time the attending physician decides that this treatment is advisable or necessary in an emergency, the equipment and solution must be sent for from the Surgical Supply Room, the intern must be called, the patient prepared with sterile technique, the vein demonstrated and the needle inserted by the intern and the flow regulated while a nurse stands by to assist and finally to watch the completion of this procedure. Unless the hospital regulations insist that the intern remain with the patient throughout the course of the treatment, he is free to go on with other work or more intravenous injections.

Tremendous Use of Saline and Glucose

In this general hospital of ours, 1200 beds, giving varied

services including maternity, paediatrics, infectious diseases and tuberculosis with chest surgery, the problem is particularly acute. During a survey period of eleven months the average number of saline or glucose intravenous injections per month was over 850, and these, of course, were given largely in the acute medical and surgical wards. For example, in one ward of 46 beds, 146 intravenous injections were given in the month of November, and in another ward of 35 beds, 102 were given. With this large number, one can appreciate how much of the interns' time is taken up with this routine treatment. Many of the larger hospitals have difficulty in obtaining their desired quota of interns and it is important therefore that they should be relieved of as much routine as can safely and wisely be left to others.

Shortage of Interns

But what about the small hospitals which have only one or two interns or perhaps none at all? Those which have none must rely on the attending physicians. These busy doctors cannot be running up to the hospital frequently and still carry on with their office work or house to house calls. What do these hospitals do in an emergency, or when the attending physician cannot be obtained except to contact by telephone.

Administration by Nurses

With these problems and difficulties in mind a committee was appointed in this hospital, representing the medical staff, nursing school and hospital administration, to investigate and report on the advisability of having graduate nurses specially trained, instead of interns only, to give saline and glucose intravenous injections. Certain obvious things stood out for consideration:

1. Adequate service to the patient for his medical and surgical needs;
2. Medico-legal responsibilities;



Fresh glucose and saline ready for use in a large hospital

3. Competent graduate nurses carefully trained.

Adequate service to the patient is paramount and ways and means must be devised to ensure that our patients get this intravenous therapy *when it is needed and not when it is too late*. This problem is particularly difficult for those smaller hospitals that are without intern service.

The medico-legal responsibilities may weigh heavily on some so it is the duty of those who can to lead the way and show how protection is to be had. In the past, intravenous therapy has been considered the practice of medicine and therefore the giving of this therapy has been in the hands of qualified doctors or under their direct control and supervision. "The old order changeth yielding place to new" and we must meet this new situation. Before we go further, it is not the intention that graduate nurses specially trained should give intravenous salines without an order from the doctor.

As to *legal opinion*, it has been said in substance that no action can lie for damages providing there has been no negligence and that it is customary for these injections to be given by graduate nurses. The problem of negligence can be taken care of by having properly trained graduate nurses. They will have to learn under supervision in the same way that undergraduate medical students or interns

learn. The anatomy and mechanics of it is not so difficult. As to venipuncture, laboratory technicians have to learn this technique also.

As to *custom*. It is the custom to teach interns or undergraduate medical students this technique. It is the custom to teach laboratory technicians the technique of venipuncture. Is it the custom to teach graduate nurses? Is it the custom to have specially trained graduate nurses give intravenous saline or glucose injections upon the order of a doctor? If not, what do the small hospitals do when they have no interns and the attending doctor cannot come? Remember we must give adequate service to the patient for his medical and surgical needs.

To answer this question of custom, Dr. Harvey Agnew, Secretary of the Department of Hospital Service of the Canadian Medical Association, has sent out a questionnaire to many hospitals. A report of this survey will be very interesting (See below). If the smaller hospitals are doing this, the trail has been broken. If the larger hospitals have done this, then the smaller hospitals are thereby protected.

*"The old order changeth, yielding place to new,
And God fulfils himself in many ways,
Lest one good custom should corrupt the world."*

—Tennyson.

Intravenous and Interstitial Administration by Nurses

Questionnaire Study by the Department of Hospital Service of
the Canadian Medical Association

APPARENTLY our hospitals are divided, although not evenly, on the advisability of permitting nurses to administer intravenous glucose and saline solutions, or of permitting them to give interstitials. In view of the issue raised by the changing conditions set forth in the accompanying article by Dr. R. A. Seymour, enquiries concerning their routine were addressed to thirty-four representative hospitals, large and medium sized, in Canada. Of these, thirty-one replied.

Intravenous Administration

Out of 31 hospitals 28 do not permit the administration of *intravenous* saline and glucose by the nursing staff. Two hospitals (one large and one of medium size) do permit intravenous treatment by nurses; one hospital did not answer this question. Although only two specified that they permitted the nurses to give intravenous glucose or saline, in one large hospital, as noted below, a specially trained nurse gives intravenous arsenicals.

Other substances than glucose or saline are administered also in the case of two quite large hospitals. The supervisor in one out-patient department administers tryparsamide, mapharsen and salyrgan, while a graduate nurse in the other hospital administers medication intravenously in the department where syphilitics are treated.

Interstitial Administration

Twenty-one of the 31 hospitals do not permit nurses to insert the needle for the purpose of administering *interstitials*; ten hospitals do allow the nurse to insert the needle (of these three are large hospitals and seven are medium sized). In the case of two of the hospitals, however, this is only on rare occasions, usually by the operating room supervisor in one instance, and by a graduate in the other.

Of the ten, four of the hospitals require that the interstitial be administered by a nurse who is a graduate. In the other six hospitals both graduates and pupils are permitted to give interstitial treatment. Nearly all stated that when given by pupils the procedure was under the supervision of a graduate nurse. Four of the ten hospitals stated that the nurses were specially trained for this work.

All hospitals, with the exception of one which did not reply to this question, found that both patients and doctors were satisfied that the nurses should administer such treatment.

Responsibility

In placing responsibility for interstitials when such are given by nurses, the doctor is held responsible in five in-

stances. (This questionnaire was sent to the directors of the schools of nursing.) Four place the responsibility upon the hospital. It is presumed that these hospitals meant that the nurse would be an employee of the hospital. One hospital did not reply to this particular question.

Pertinent Comments

"This is definitely a medical and not a nursing procedure."

"Graduate nurses, properly trained, would be as efficient in this procedure as medical interns. We find nurses are, as a rule, more careful in regard to the surgical technique of such procedures and are more amenable to teaching and criticism. I would emphasize that such work be allotted to only a certain qualified, properly trained group of graduate nurses."

"In my opinion intravenous treatments should be a doctor's procedure, and at the present time it would seem that too much responsibility in regard to the procedure following the insertion of the needle is being left to the nurses. There are other things that registered nurses might do where there would be less possibility of serious consequence to the patient. At the present time hospitals are having a serious difficulty financially, and in providing sufficient nurses to do nursing work. Nursing work and responsibility are increasing all the time due to the fact that work other than nursing is being left for nurses to do. The result is that patients are missing actual nursing care

to which they are entitled, and nurses are doing work for which they are not trained—or legally protected."

"I see no reason why graduate nurses should not learn to do this and do it well. However, until some non-nursing duties are discontinued I would be reluctant to see anything else added to her work."

"Personally, I cannot see why these treatments cannot be given by a specially qualified graduate nurse, but I believe it is not legal for them to do so in this province." (New Brunswick).

"Student nurses should not be expected nor allowed to take the responsibility of such an important procedure and it would not seem possible to have specially trained graduate nurses available for all the intravenous work that is being done at the present time."

"Until fairly recently the interns had full responsibility for the giving of treatment, but with the increased use of it the nursing service has been responsible for watching the patient after the intern has reported that he is satisfied that everything is all right. He is expected to be available quickly should he be needed, and the nurse may discontinue the treatment should she think that the patient's condition warrants it for any reason."

"In our Diabetic and Special Research Department, the supervisor takes blood specimens; and in an emergency, if a diabetic patient is having a reaction, has given glucose intravenously."

Canadian Society for the Control of Cancer Signally Honoured

On February the first the Canadian Society for the Control of Cancer received a communication from the Privy Purse Office, Buckingham Palace, containing the information that His Majesty the King had been graciously pleased to grant his Patronage to the Society. That evening the first public meeting under the auspices of the Ontario Branch was held in Ottawa. His Excellency, The Governor-General, Lord Tweedsmuir, G.C.M.G., C.H., graciously attended, and delivered an inspiring address.

Dr. William Boyd, Professor of Pathology, University of Toronto, who is known as one of Canada's best medical speakers, was the scientific speaker for the evening.

Mr. H. Napier Moore, a director of the Society and chairman of the publicity committee, made an eloquent plea for membership and public support. Dr. R. E. Valin spoke in French.

Through the kindness of the CBC the speeches were broadcast across Canada. Dr. Warren Lyman, of Ottawa, acted as chairman and present on the platform in addition to the speakers were Sir Lyman Duff, chairman of the Board of Trustees of the King George V. Silver Jubilee Cancer Fund, Rev. Dr. Woodside, Monseigneur Charbonneau, Hon. Dr. Manion, General McNaughton, Col. Clarke, Doctors R. E. Wodehouse, J. J. Heagerty, A. T. Bazin, T. C. Leggatt, H. Lapointe, P. Brodeur, T. C. Routley, A. D. Kelly, G. J. Wherrett, and C. C. Ross.

Almost a thousand people were present and, from report, there were in addition many thousands of radio listeners. The local committee in Ottawa are to be congratulated upon the outstanding success of this meeting. In the near future similar public meetings will be held in London, Kingston, Windsor and other cities.

Dr. T. C. Routley, who has recently returned from a trip to the west coast, reports great enthusiasm for the work of the society in the western provinces. He kindly delivered several public addresses at the request of the provincial branches. Dr. J. S. McEachern, president of the Society, spoke before the Calgary Rotary Club in January.

Ten thousand copies of the first issue of the Society's bulletin, "Cancer", were distributed throughout Canada in January and, as a result, many applications for membership have been received. The Society is a lay medical organization and all persons interested are invited to become members by applying to the National Headquarters, 43 St. George Street, Toronto. The medical profession can do a great deal to further the work of the Society by urging their patients also to apply for information and membership.

Material for publication in the bulletin "Cancer" should be forwarded to the Canadian Society for the Control of Cancer, 43 St. George Street, Toronto.



Leonard Shaw

THE hospital field on this continent lost one of its most brilliant and promising young leaders in the untimely death of Mr. Leonard Shaw, assistant secretary of the American Hospital Association, who died in Chicago on the eighteenth of February. Mr. Shaw was taken ill early in December with an unusually virulent form of myelogenous leukemia which resisted every effort to delay its progress. He remained on duty until within three weeks of his death, at that time insisting upon going to Toronto to further the arrangements for the annual convention in September.

Leonard Shaw received his hospital experience in Canada. Born in England he first became interested in hospital work in Swift Current. From there he went as manager to the Moose Jaw General Hospital, during which period he was elected President of the Saskatchewan Hospital Association. When a reorganization was undertaken at the Saskatoon City Hospital, Mr. Shaw was invited to take over the superintendency, a position which he filled with such ability and such evidence of the qualities of leadership that, a year ago, he was invited to become the assistant secretary

of the American Hospital Association. Prior to this appointment and change of residence, Mr. Shaw had been active in the work of the Canadian Hospital Council, first as delegate from his province, then as chairman of a study committee on collection methods and, in 1937-38, as first editor of *The Canadian Hospital* after its official connection with the Canadian Hospital Council was established. Mrs. Shaw and one small daughter mourn his loss.

Leonard Shaw will be greatly missed. His sterling personal qualities, his versatility, his many attainments and his boundless energy endeared him to all who knew him. His associates in the hospital field, appreciating his executive ability, his vision, his leadership and his eloquence both on platform and on paper, had long prophesied a brilliant career for him in hospital administration. Had he lived until the September convocation he would have been honoured with the Fellowship of the American College of Hospital Administrators. That he should have been so stricken in his early thirties is indeed a severe loss not only to the American Hospital Association but to the entire hospital field.

*"So when a great man dies,
For years beyond our ken,
The light he leaves behind him lies
Upon the paths of men."*

Are Our Hospitals Receiving the Best Possible Fire Insurance Rates?

By J. A. THOMPSON,
Past Chairman, Board of Trustees, Moose Jaw General Hospital

The Saskatchewan Hospital Association appointed a Special Committee to study the subject of fire insurance premiums as paid by its hospital members. Mr. Thompson was Chairman of that Committee.

YOUR committee obtained information from twenty-nine hospitals, all of which are members of this association. Those twenty-nine hospitals carry approximately \$2,000,000 fire insurance coverage on their hospital buildings, furnishings and nurses' homes. During the past *ten years* they have paid in fire insurance premiums the sum of \$91,823.87, while during the same period the losses sustained amounted to only \$810.28, or *less than 1 per cent of the premium paid!*

This is an exceedingly low loss ratio, brought about, no doubt, by an intensive supervision of the operation of the hospital and by the recognition of their responsibility and their aptitude for action on the part of those in charge of such operations of the hospital. It is but fair to state, however, that during that period there have been several fires in hospitals outside of our association, and I venture to say most of those fires can be traced to lack of proper supervision, or to neglect in remedying a faulty situation.

Some time ago a report of a hospital fire in a neighbouring province gave as the cause an overheated stove pipe. Surely there is no excuse in a hospital for allowing such a possibility to exist. When there is such a risk of both life and property it is the duty of those in charge of our hospitals to guard against such possibilities and to see that such defects are immediately remedied.

On all fire insurance written in the Dominion of Canada during the year 1936, the loss ratio was 34.99 per cent of the premium earned, and for the year 1937 the loss ratio was 34.91 per cent; for the entire Province of Saskatchewan for the past five years, 1933-1937 inclusive, the average loss ratio was 29.30 per cent, yet for the 29 hospitals referred to the loss ratio was less than 1 per cent.

The present method employed in setting our rate structure is based on two factors:

- (1) Class of construction of the premises;
- (2) An average estimate of all that is good and all that is bad in management, of honesty and dishonesty, of wisdom and ignorance and of the hazards arising from the

characteristics of human nature. Each premise is presumed to carry that average "moral hazard" with it.

One might venture to say that 90 per cent of our fires are the result of carelessness or neglect on the part of some one; that is, the moral hazard. Is it not fair and just, therefore, that the premium rates should be reduced in accordance with the degree to which this hazard is eliminated?

Why Hospitals are Better Risks

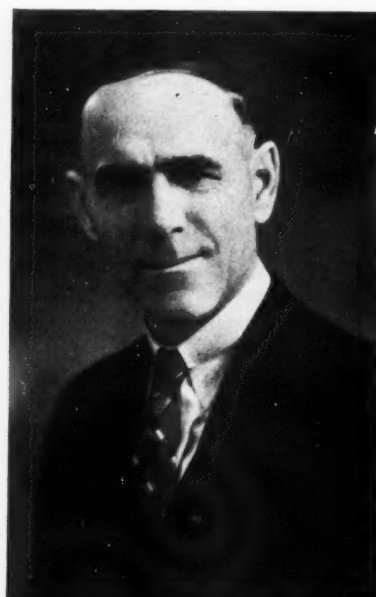
Hospital risks do not carry with them the average moral hazard. This factor in a well conducted hospital is reduced to a minimum. There is no business or enterprise where there is such effective training in care and vigilance and so great a demand for devotion to service. Constant and intensive supervision of all parts of the building for 365 days in the year, night and day, would seem to be ample justification for special consideration in our premium rate.

Moreover most hospitals are set apart from other buildings and are therefore not subject to destruction or damage by fire originating in other premises—a common cause of fire. There remain but two major causes of fire: the one is lightning, which is very rare; the other is the personal or moral hazard—carelessness on the part of some member of

the personnel, failure to remedy a situation that might prove disastrous. This hazard should not be permitted to exist in any hospital.

But the hospitals must do their part. If you will definitely undertake to have a daily inspection made of all parts of your hospital by some competent member of your staff, and keep a daily record of all property or administrative weaknesses or defects from the fire hazard viewpoint, and agree to promptly rectify such defects or weaknesses as they appear, you will not only greatly increase the efficiency of your hospital, but you will create a situation in so far as fire and other lines of insurance are con-

(Continued on page 89)



J. A. Thompson.

Opposite Page—

Photograph reproduced by courtesy of the
Toronto Western Hospital.

ble

pre-
th it.
fires
rt of
r and
duced
ee to
1?

isks

with
This
ital is
is no
ere is
e and
d for
nd in-
of the
year,
to be
onsid-

re set
d are
uction
ng in
se of
major
tning,
is the
reless-
per of
might
ted to

defi-
of all
your
minis-
view-
weak-
crease
situ-
e con-

he

ITAL



"...Ready."

Fire Prevention and Fire Drill in City Hospitals

By S. McEWEN, M.D.,
Medicine Hat General Hospital

THE best time to prevent fires in a city hospital is before it is built. If construction is not fire-proof, fire dangers begin to accumulate as soon as construction begins. First of all, therefore, plan wisely; firstly, plan for fireproof material and, secondly, plan so as to prevent the spread of smoke through the building, should a fire start. Even in so-called "fireproof buildings, fires can start. Many of the things in a ward, such as furniture, hangings, bedding, newspapers, etc., are inflammable. While the fire may not endanger the building as a whole, it is much more comfortable for patients and nurses if the smoke can be shut off from most of the hospital. Open stairways or elevators should be avoided and, if the hospital is large, special fire doors should exist to close off any part of the hospital from the rest.

However, many of us cannot start fire prevention with construction. We have inherited, perhaps, a building, which, constructed years ago, is anything but fireproof and, because of lack of funds to replace it with better, we have to carry on as best we can. With this type as well as with new buildings, one can look ahead to some extent. Instead of waiting for a fire, try to avoid its cause. Renew wiring where the load has become heavy or where the installation is out of date and unsafe. If open stairways lead from floor to floor, close them in to prevent drafts and smoke spreading in case of fire. Install any apparatus that would help to quickly extinguish a fire. These should be placed throughout the hospital so that there is one available in every section. In city hospitals water and fire hose can be kept ready for immediate use at various vantage points throughout the building.

Some city hospitals carry on with a staff of trained nurses. As a rule these nurses do not change frequently,

and if fire drills are carried out, say once a month, they soon know everything that can be done. In the case of hospitals with training schools, more care is needed. Careful instructions should be given and fire drills should be carried out often.

In our hospital we have a fire alarm box, such as is often located on street corners. The telephone number, an easy one, is learned by all members of the staff. When a fire starts, the nurse nearest the fire alarm rings in the alarm, presses a button beside it to recall all nurses in residence to duty and contacts the fire department as well. The signal, one long ring sounding through the hospital, warns all that the fire is in "flat one". Three long rings means "flat three".

The nurses then close all the ward doors, any fire doors, and proceed to the front of the building, ready for further orders. By this time the fire chief is there and undertakes the management from then on.

If the fire seems likely to destroy the building or a wing, the patients will have to be removed. If all beds are on good sized casters and if ward doors are large enough to let the beds through, the bed and patient can often be moved to safety with little trouble, using the bed instead of a stretcher. Fire escapes are sometimes of value; a well, active person can navigate them but the average fire escape does not solve the difficulty if a patient is really disabled. If a fire escape is to be of any value to helpless persons it should be such that a stretcher could be carried down it with convenience. A long chute, one upon which mattress covers and all slide down an incline almost to the ground, may be valuable for third story patients, but this has a limited use.

Presented at the joint convention of the Alberta Hospital Association and the Alberta Municipal Hospitals Association, Calgary, 1938.

Fire Regulations and Drill for Rural Hospitals

By E. R. KNIGHT,
Bursar, Central Alberta Sanatorium

THE first essential in fire prevention is regular inspection. Responsible officials should make a thorough and frequent search of both the outside and inside of buildings for fire hazards such as accumulations of rubbish, oily rags, waste, etc. If these are permitted to occur, they provide possibilities of fire through spontaneous combustion or by the carelessly thrown cigarette end or match. Electrical wiring should be carefully inspected, special attention being given to temporary extension cords for the numerous electrical appliances which

are now available. Staff quarters should be particularly observed in this regard. Where outlet facilities exist for connecting flat irons, curling irons, etc., they should, wherever possible, be provided with some visible means of indicating when current is turned on, such as small red pilot lights.

In the provision of a *fire alarm system*, the type used, will, of course, largely depend upon the nature of the institution. Let us take, for example, the Central Alberta

(Continued on page 88)

The National Building Code

THE National Building Code is being prepared under the auspices of three organizations, the National Research Council, the Dominion Housing Administration and the Dominion Fire Commissioner's Office in collaboration with the Department of Trade and Commerce, the Department of Mines and Resources and the Department of Pensions and National Health. The work is centered in the standards section of the National Research Council.

For some years attention has been drawn to the inadequacy of building regulations in many parts of the country, to exacting and unreasonable requirements in some instances and to the fact that lack of uniformity, coupled with unreasonable requirements, was a serious deterrent to the development of low-cost construction. As a result of representations from such organizations as the Canadian Construction Association, the Canadian Hospital Council, the Royal Architectural Institute of Canada and other bodies, the National Research Council undertook, a year or so ago, to investigate the possibility of preparing such a code.

This code is being prepared in such a way that municipalities may adopt it in whole or in part by enabling by-laws without change. The option to take action rests entirely with the local authority.

The project is under the honorary chairmanship of the Hon. C. A. Dunning, Minister of Finance, who was largely responsible for getting the project under way. The chairmanship is vested in the president of the National Research Council, Major-General A. G. L. McNaughton. Contact with professional associations, trade and industrial bodies and governmental and municipal authorities throughout the country is maintained by means of a comprehensive *Advisory Committee* upon which the Canadian Hospital Council is represented.

The actual work of preparing technical sections of the code is directed by an administrative committee under the chairmanship of Mr. F. W. Nicolls of the Dominion Housing Administration.

The *Administrative Committee* has under its jurisdiction three main committees: construction requirements, fire protection and requirements bearing upon health and sanitation. The co-operation of the Canadian Engineering Standards Association is an important feature of this project and it is considered to be fundamental that any regulations put forward by the code should be in keeping with the corresponding specification of the Canadian Engineering Standards Association.

The Sub-committee on Wood Construction has already completed its section and submitted it to the Advisory Committee. The masonry section is nearing completion.

Committee on Fire Protection

This might be considered as the meeting ground for all the interests that are being treated separately under the Committee on Construction. Fire protection is not an

exact science, nevertheless, certain principles have been accepted on which can be based regulations to limit danger to life and property from fire. One of these principles has been the use of standard fire-resistance rating tests. These tests which involve exposure of a section of a building assembly to a controlled source of fire under definite conditions of temperature and loading afford a means of assigning to various materials and methods of construction empirical fire-resistance ratings of, for example, one hour, two hours, three hours, or four. By their use for the designation of what the fire-resistance of a structure or component shall be, the path is left open for an architect or builder to use any material that he prefers provided it complies with specified performance requirements.

The Code is concerned in the matter of fire protection only with the performance of the material in the form in which it will be used in the structure and as manifested in the results obtained in standard fire-resistance tests. In Canada in the past there has been no standard fire-resistance test. However, the Canadian Engineering Standards Association is preparing a standard fire-resistance rating test for elements of structures and also a test for roof-covering materials. When these procedures have been completed the National Research Council will be prepared to make the necessary laboratory tests and assign ratings to materials submitted to it. In the meantime, in order that the first edition of the building code may not be delayed, the ratings established by certified tests of such organizations as the National Bureau of Standards in the United States have been accepted.

Committee on Health and Sanitation

Under the Committee on Health and Sanitation have been grouped such topics as zoning and orientation, light and ventilation, plumbing and heating and certain structural requirements that have a bearing on health and sanitation.

The section on *zoning* embraces zoning in the broader sense of the word, and deals with limitations in respect of location in the community as well as considerations bearing upon the individual property such as set-backs, court-yards, and building heights. The section on zoning presupposes the establishment of such geographical limits in any community by separate by-law.

A comprehensive code of *plumbing* and *draining*, also in preparation, may be published separately in the near future.

On the question of *heating* it is probable that the Code will go no farther than to stipulate that the heating installation shall be capable of maintaining a specified minimum temperature under a tabulated mean exterior temperature for different parts of the country. Similarly with *lighting*, the Code will, no doubt, stipulate only that when a building is constructed the wiring system and outlets shall be of sufficient capacity to provide adequate illumination in

(Continued on page 89)



The Value of the Medical Record to the Intern

By W. R. FEASBY, M.D.,

Resident Physician, Toronto Western Hospital

FIRST and foremost to the intern comes the *instructive* value of the record. From the very first morning when the intern may be called to an emergency, say, a diabetic patient in coma, he realizes how much time and worry may be saved if he has available an out-patient record, showing how much insulin has been used and what diet given. This may save not only time and energy, but the patients' lives. After the patient has been admitted to the ward, the intern quickly learns to put into practice what he has learned in theory at the Medical School. He applies the principles of order and thoroughness which were drilled into him there. He learns how to make a record personal and important to all who use it and not merely the impersonal didactic sort of record that he used as a student.

As he makes rounds with the staff physician, the intern learns in another way. He gets the benefit of his staff doctors' years of experience as he observes the records that they make. Thus in these two ways instruction may be carried out through the record.

Here I should like to pay tribute to librarians as a group for the invaluable assistance always rendered so courteously and promptly to interns from other hospitals.

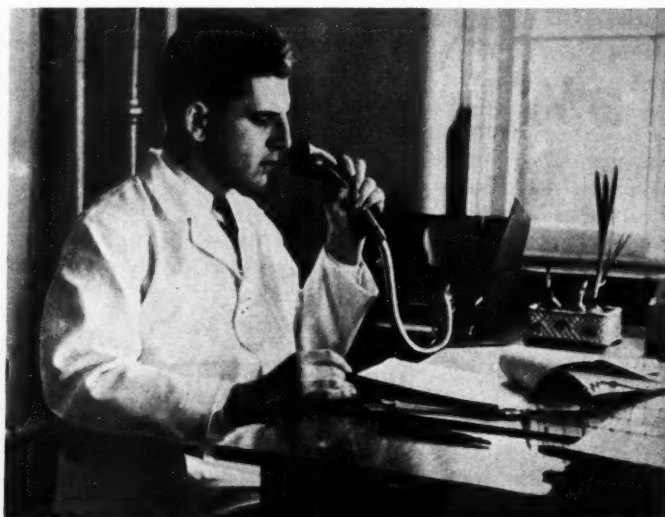
The intern next makes use of the record in the Out-patients' Department to which the patient returns. Here the intern has many patients to see in a little time. The indoor record provided him, he summarizes the findings quickly and is able to give the patient the required treatment quickly and exactly. This is always a valuable lesson for the man who is going out into practice, for it shows him how essential it is to have a neat, orderly, easily available record to deal with a large visiting practice.

Next comes the accumulation of records and the summary of a group of cases. This provides a new highlight for the intern whose privilege it is to review such a series. Such a survey, for instance, as one which I have recently completed of a group of fifty cases of lobar pneumonia, will show us three things. First, the gaps which sometimes occur in our records. Finding this will spur one on to avoid such mistakes oneself. Fortunately the gaps

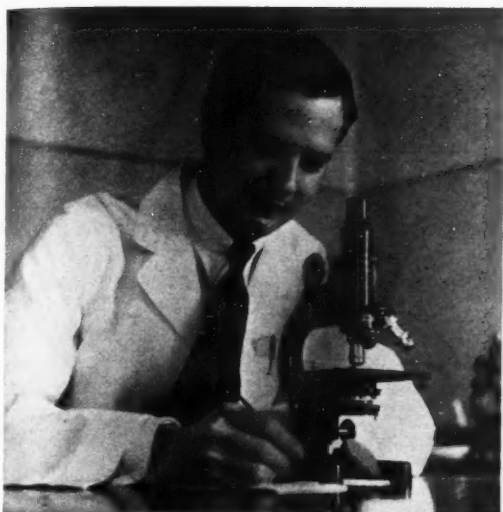
are few, but the value of the negative record is very forcefully brought home. Sometimes it seems tedious to undertake a large negative list, but in two, three or more years time it may have a very definite value in assessing the onset of an insidious disease. Secondly, it allows one to make some personal estimate of the value of treatment and the relative value of new treatments. It warns one away from the dangers of over-enthusiasm and fadism, which are all too prevalent these days. Thirdly, it provides a new and different idea of disease. One tends to learn a certain fixed picture of disease at school; this becomes altered to a broader and more variable picture after reviewing a large group of cases.

Review of cases will teach quickly the value of a uniform, consistent terminology. In insisting upon this one must always remember that a record is only as good as the thoughts therein.

Fortunately the record does not have to be used very often in the court room. Sometimes, however, one is very glad of these few simple notes made when a poisoning or the suicide case was admitted. One is enabled thereby, if the notes have been intelligently made, to give a safe reply to any cross-examination in the court. It will avoid the embarrassing spectacle of the young intern being made sport of by the attorney with a warped sense of humour.



Presented at a session of the Association of Record Librarians of Ontario, November, 1938.



More rarely it becomes possible to show the public through a newspaper how public patients are cared for, to the better influencing of public opinion. Recently we had

an opportunity of this kind and, with the aid of a few charts selected at random from our files, gave a comprehensive thumbnail sketch of several cases, in an attempt to do away with the former, gloomier conception of public hospital care of indigent patients.

Let me summarize then, the value of the hospital record to the intern:

1. It teaches.
2. It shows the value of grouping data.
3. It shows the value of uniformity in terminology.
4. It supports him in court.
5. It can influence new trends of public thinking.

Of these the greatest lesson is perhaps the one learned from the collection and grouping of data. May I urge all of you, to use every opportunity, to show the intern how he may make use of your records for the furtherance of his own and of medical thought in general. With this in mind I am sure that the time spent upon records will no longer be looked upon as a bore, but as a genuine pleasure, as I for one can assure you it has been.

Canadian Hospitals Given Special Rates for Membership in A. H. A.

HOSPITALS in Canada may now become members of the American Hospital Association at a *reduced* rate. This new basis of membership was adopted at the February meeting of the Board of Trustees in Chicago. Canadian hospitals will now be able to enjoy the full privileges of membership upon payment of but *three-fourths of the regular dues*.

It will be recalled that, two years ago, the American Hospital Association completely revamped its basis of organization, a House of Delegates including Canadian members being formed and a new basis of dues set up. The fee schedule then adopted is on the more equitable basis of the annual number of patient days, but on the whole the fees have been somewhat higher and the maximum was raised from \$50.00 to \$75.00. As a result the dues of a number of the Canadian hospitals have been raised. This has caused dissatisfaction in some quarters because of the fact that, in legislative matters at least, the Canadian members have not received as much in return as have the hospitals in the United States.

Realizing the justice of this viewpoint the Board of Trustees unanimously agreed to make a 25 per cent allowance to active Canadian institutions on their annual dues. The regular membership fees, as approved in the constitution adopted September, 1937, are:

Type I. Hospitals that care primarily for acute diseases and conditions where patients stay a comparatively short time—one mill (\$0.001) for each day of the

first 40,000 days of patient service and one-half mill (\$0.0005) for each day of the next 70,000 days of patient service, newborn infant days excluded. The minimum dues are \$10.00 and the maximum, \$75.00.

Type II. All other institutions that provide for the care of patients requiring prolonged residence, as well as hospital departments of institutions organized not primarily for the sick—the same dues, except that the maximum is \$20.00.

The above dues have been reduced 25 per cent for Canadian hospitals.

In view of this very generous arrangement on the part of the Board of Trustees, it is hoped that a large number of Canadian hospitals will become associated with this great body which is by far the most active hospital association existing and which is "American" in the broad sense, a number of our leading hospitals and hospital workers being enthusiastic members. An increased Canadian membership would be most appropriate in view of the Toronto meeting in September.

Racial Welfare. I am disgusted when I see a young man shirk the ascent of a short flight of stairs; I would like to see the use of a lift by all healthy persons under 60 years of age an indictable offence.

—Dr. Adolph Abrahams in a symposium on *National Physical Training at the Medical Society of London*.

Obiter Dicta

Financing Hospitals

THE problems confronting hospitals, particularly the larger ones, and to a lesser degree the smaller ones, in financing, would not appear to be lessening. These problems are not local, but appear to be very wide-spread, that is, every part of the country is meeting with the same difficulties, in financing, and it would appear that the hospital which is able to finance its maintenance costs under present conditions is a rarity.

From information contained in the press, very excellent articles in the *Financial Post*, and the odd item over the radio, it appears to be evident that either the number of indigent patients is increasing, or there is a distinct lessening of ability on the part of these patients to pay anything towards their hospital care. Out-Patient Departments are not getting any smaller.

Hospitals are distinct from hotels—people go to the former because they have to, to the latter because they want to. The need, and not the want, is the hospital problem. A person may want a suit of clothes, but does not necessarily need it, and the want would not be supplied unless either his credit was good or he had the money with which to pay for it. No such situation exists in hospital practice. A man may have a broken leg and its needs must be taken care of at whatever hospital the patient presents himself, and this irrespective of whether he is there by right of his citizenship in that community, or whether he can pay anything at all or not. In other words, the hospitals must continue as before to supply the obvious need, as in the instance of the fracture. Nor is this all, since, as the *Financial Post* very splendidly states, hospitals, particularly the larger ones, are being squeezed between expanding medical science and fixed governmental grants which have been fixed for a long time. The story or the problem of the hospital is not new, as it is always difficult for them to make ends meet. This difficulty has increased in later years and bids fair to become aggravated.

Solution. The diagnosis is easy enough; the cure more difficult; while the prognosis under present conditions is fraught with difficulty.

Cure. One of two courses appears to be open—

(1) That the hospitals, particularly the larger ones, restrict their services. How this could be done without jeopardizing the health of the people I do not know. With privately owned and operated hospitals, it might be possible, but with publicly owned hospitals, the problem is of a different sort.

(2) The only other solution, apart from the ability of

people who pay for their services paying more, and this appears to be out of the question as they are paying all they can now, or Group Hospital Care, is per diem patient provincial grants sufficiently adequate to take care of the problem in full. In other words, is it, or is it not, possible for some fixed governmental income, sufficient for the purpose, to be ear-marked solely for hospital use?

Hospitals have to pay their bills and merchants have been very generous in the treatment of hospitals, but it cannot go on indefinitely or for too long a time. Many patients are taking semi-private who formerly took private accommodation, and the installment plan of payment for semi-private is perhaps applied more extensively than it was a few years ago.

Hospital management, never easy, has become very, very difficult financially, and the end is not yet.

S. R. D. H.



Who May Give Intravenous Injections?

IN this issue Doctor Ansley Seymour of the Vancouver General Hospital raises an interesting question. It is essentially a practical one, too. The use of intravenous and interstitial fluids has become such a routine measure in so many hospitals that the problem of their administration is giving the nursing and medical staffs considerable food for thought. It is all right to say, let the interns do it, but we must remember that approximately 85 per cent of our public general hospitals do not have interns. Yet intravenous injections are just as necessary in those smaller hospitals as in the larger ones.

Nor can we depend upon the medical staff to administer the injections. The attending doctor may be able to insert the needle before he leaves following the operation, may do so on his later rounds, or may make a special trip to the hospital, but the arrangement is not reliable. He may be in a hurry to get to another patient, or, if out of the hospital, may be tied up or unavailable. Dependence upon the visiting doctors means delay, and delay may be fatal to the patient.

The replies to the questionnaire indicate that the majority of hospitals questioned do not permit their nurses to give either interstitial or intravenous injections. A fair number, do, however, especially interstitials. It is the writer's opinion, after hearing this discussed by many hospital heads and at numerous round tables, that the

practice is much more common than these replies would indicate. Especially is this so in the smaller hospitals. Actually we know that graduate nurses are giving both interstitials and intravenous injections in many hospitals. Women are naturally more deft and sensitive with their fingers than men, and a graduate nurse, trained to do this work, should soon be able to do it better than either the constantly changing interns or their superiors. The writer well remembers a bright little ninety-five pound staff nurse upon whom he and his fellow interns always called for assistance when a vein could not be found. She never failed.

Some of the replies would indicate that certain directors of nursing take the viewpoint that the nurses are burdened enough now without assuming new responsibilities. Obviously as new duties are undertaken by the nursing staffs, such staffs will have to be augmented to meet the demand. That is a matter of adjustment. Undoubtedly this would be another encroachment upon the field of medicine, but so much of the technical side of medicine is now delegated to nurses and technicians that such is not of primary concern.

Of more ultimate importance is the question of legal justification. As Doctor Seymour has pointed out, the accusation of negligence can be avoided by having the injections given by properly trained graduates; the matter of custom, which after all establishes the propriety of an act, is still in the making. If nurses can take blood pressures, measure out deadly drugs, irrigate wounds, supervise electro- or radiotherapy and even inject salvarsan, why cannot they be entrusted to inject some saline? An accidental loss into the surrounding tissue would likely be less serious than the delay of waiting for the doctor. The nurse is entrusted with much more responsibility than this when she is permitted to measure out and administer a hypodermic of strychnine.



Fire Insurance Rates

ARE fire insurance rates on hospitals too high? The figures given by Mr. J. A. Thompson elsewhere in this issue, showing a fire loss for the past ten years for 29 hospitals belonging to the Saskatchewan Hospital Association of less than one per cent (!) of the premium paid, would indicate that the rates now charged to hospitals are unnecessarily high. As he points out, there is no business nor enterprise where there is such effective training in care and vigilance and such constant day and night supervision of buildings as in the case of hospitals. Moreover hospitals are usually set somewhat apart from other buildings (crowding is a common reason for fire damage) and are almost invariably equipped with more than ordinary fire protection. It was indeed to be expected that the Saskatchewan Hospital Association would request the Provincial Government to establish a permanent Insurance Commission to assemble information on the cost of insurance of different classes and risks and to act as a Board of Arbitration to adjust premium rate disputes.

Striking, however, as is this disparity between rates and fire losses, one cannot jump too hastily to conclusions. For instance, the hospital fire at Estevan was not included

in this tabulation. Fire insurance statistics as compiled by fire underwriters' associations would indicate a somewhat higher percentage of loss. This may be because they list hospitals without differentiating those which do or do not belong to hospital associations. Naturally hospitals of cheaper construction in rural communities with very limited fire protection offer considerable risk. As has been pointed out by one insurance official, the total premium income for the hospital class is not extensive and one severe loss could upset a fine record for many years to come.

Actually hospitals have been given increasingly better rates during the past five years. The manager of the Western Canada Insurance Underwriters' Association has listed some of the extensive reductions in rates both to "protected" hospitals (those protected by municipal waterworks and fire departments) and to "unprotected" hospitals. Altogether these reductions have amounted to 25-30 per cent and higher.

A committee on insurance is now studying all forms of insurance for the American Hospital Association. It too is finding a general reduction in rates due to better statistics, the razing of old, more inflammable buildings, the newer fireproof construction and better precautionary measures. It does find it advisable to have property re-examined and, if possible, have it placed in a more favourable classification. Without such insistence many hospitals may continue to pay a higher premium than is necessary.

This study by the Saskatchewan committee might well be made in other provinces. Is this an unusual stroke of good fortune for the fire insurance companies, or would the same experience be found elsewhere? Do many of our hospitals need re-classification? Will the rates be found to be fair or should they be modified? Our hospital associations could obtain much valuable information for their members, both by collaboration with insurance companies and by thorough, independent studies. In the interval the suggestion of Mr. Thompson that weekly routine fire inspections be made and *recorded* would reveal and permit early correction of many potential fire hazards.



Mr. R. Laporte Joins Editorial Board

IT is with pleasure that we announce the appointment of Mr. R. Laporte of Montreal, to the Editorial Board of The Canadian Hospital.

Mr. Laporte's connection with hospital work began in 1931 when he left a business career to become assistant treasurer of the Notre-Dame Hospital in Montreal. Two years later he was promoted to the post of superintendent and secretary of the Board of Administrators of that hospital and since 1937 he has been second vice-president of the Montreal Hospital Council, Inc. Mr. Laporte's appointment to the Editorial Board fills the vacancy created by Rev. Father Verreault's departure from Canada, and we are particularly happy to welcome again a representative of the French speaking hospital workers who take so active a part in hospital work in Canada. We welcome Mr. Laporte and we look forward with pleasure to his participation in the work of The Canadian Hospital.

Estevan Gets New Hospital

Modern Institution Erected by
Sisters of St. Joseph



THE new St. Joseph Hospital at Estevan, Saskatchewan, built at a cost of \$100,000 by the Sisters of St. Joseph, Peterborough, Ontario, provides accommodation for 37 patients.

On the *ground floor* at the front and left are located the public waiting room and phone, the office, chart room, cloak room for doctors and three staff dining rooms. At the right of the entrance is a pharmacy, x-ray room, laundry, laboratory and morgue. The kitchen and bake room, storeroom and emergency department are at the back.

The *first floor* is divided lengthwise by a corridor. On the first floor are five wards and eight private rooms, servery, utility room, linen closet and toilet facilities.

A large and small operating room, with connecting sterilizing and scrub-up rooms and doctors' room, form one unit at the back of the *second floor*. The delivery room, nurses' room and sound-proof nursery are across the corridor. A work room situated at that end of the corridor connects with the larger operating room and the delivery room. The arrangement of the remaining utility

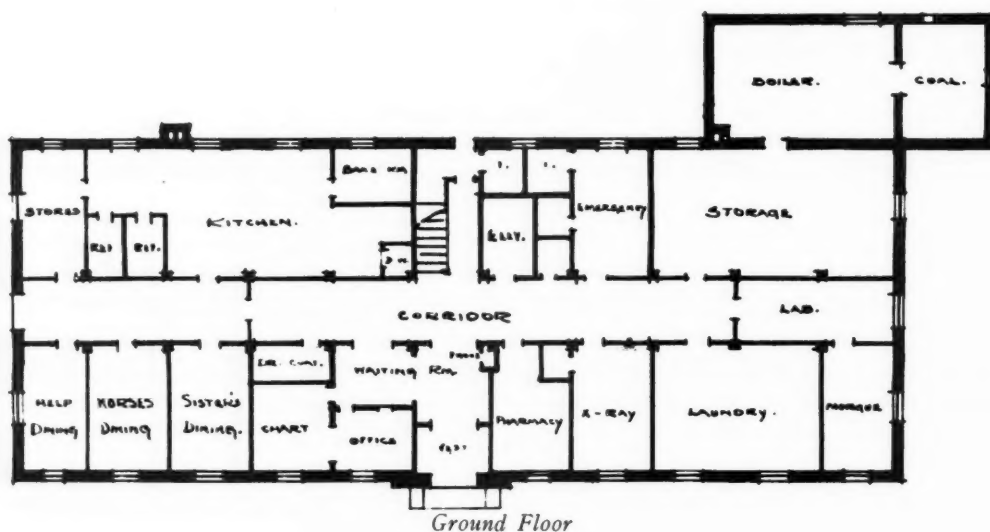
rooms and wards on this floor duplicates that of the first floor.

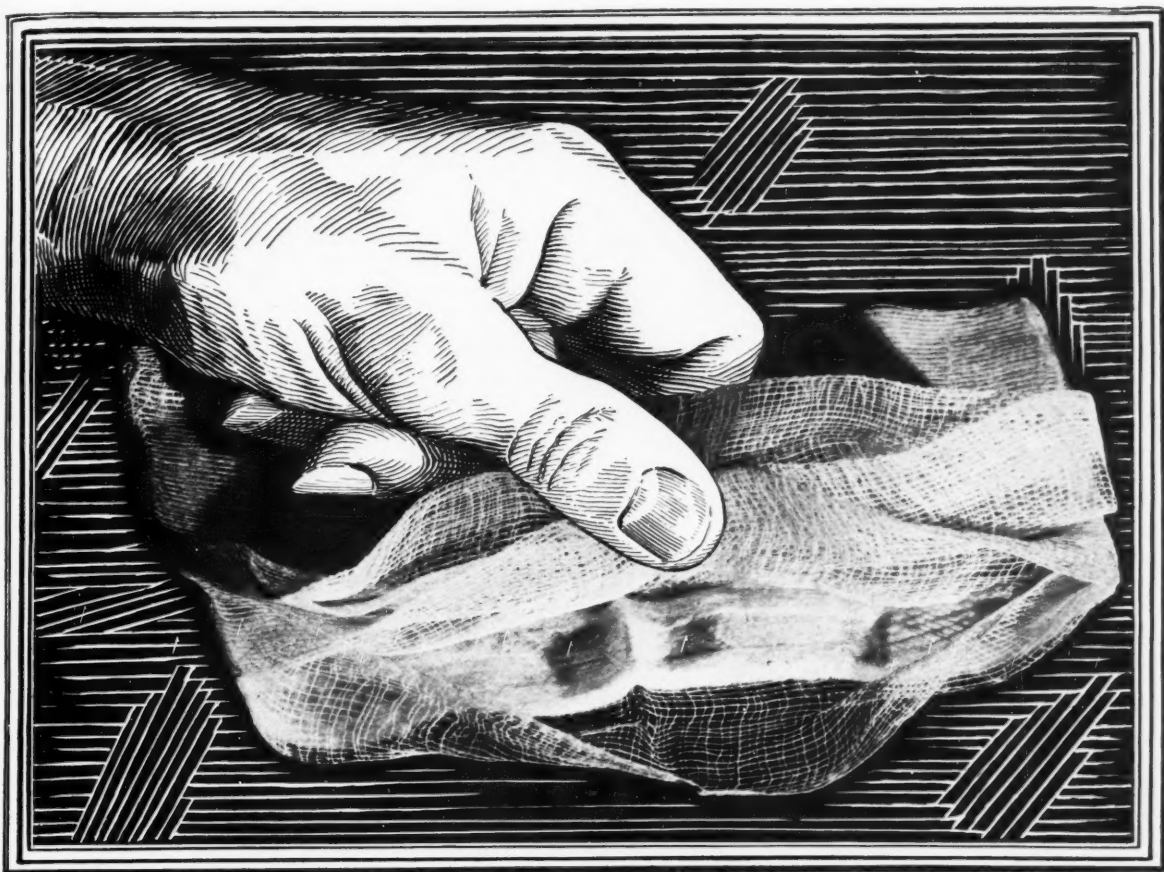
The living quarters of the sisters and special nurses are on the *third floor*. There are seven bedrooms, a common room, vestry, chapel and sanctuary, two linen rooms and toilet facilities. Sun balconies have been built on both sides of the building for the use of the patients.

Operating rooms and service departments are laid with terrazzo; other floors are of tile overlaid with linoleum. The iron stairways are laid with asphalt tile. An electric elevator runs from the ground to the third floor, and an electric dumb waiter system serves the diet kitchen on the first and second floor. A silent signal system has been installed for the patients.

The four-storey building is of fireproof brick and concrete; walls, beams and floors throughout are of concrete and the exterior is of Estevan face brick and hollow tile in buff shade. The walls are insulated with a 2" layer of cork. Heating is by a vacuum steam heating system. The boiler room and coal storage room are outside the main building.

(See other floor plans on page 52)

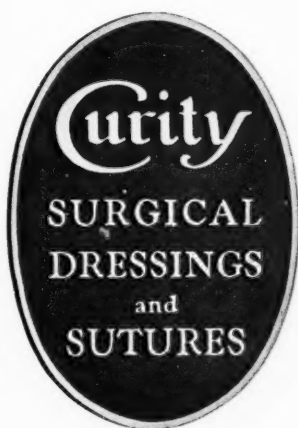




CURITY RESEARCH PRODUCES

Welded Cotton

FOR GREATER ABSORBENCY



SURGICAL dressings and sutures are the hospital's "tools". As a producer of these tools Curity is constantly working to discover ways and means of making these instruments of healing more efficient and effective. For this purpose alone, it employs an extensive research organization.

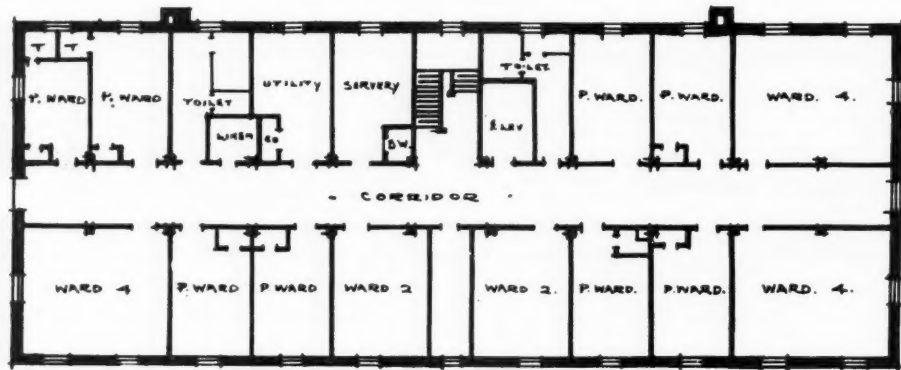
The work done in Curity laboratories has benefited hospitals in many ways. As an example, an intensive study of the properties of absorbent cotton several years ago, led to a revolutionary discovery. It was found that when specially prepared bleached cotton fibres were subjected to high pressures under certain conditions, the individual fibres became "welded" together. It was further found that absorbent cotton welded together in this manner possesses far greater ability to soak up and retain liquids. The knowledge was immediately put into practical use. "Welded" cotton is now incorporated in Lisco Sponges and is the secret of their outstanding absorbency. Another achievement for Curity research, another improved product for hospitals!

BAUER & BLACK LIMITED

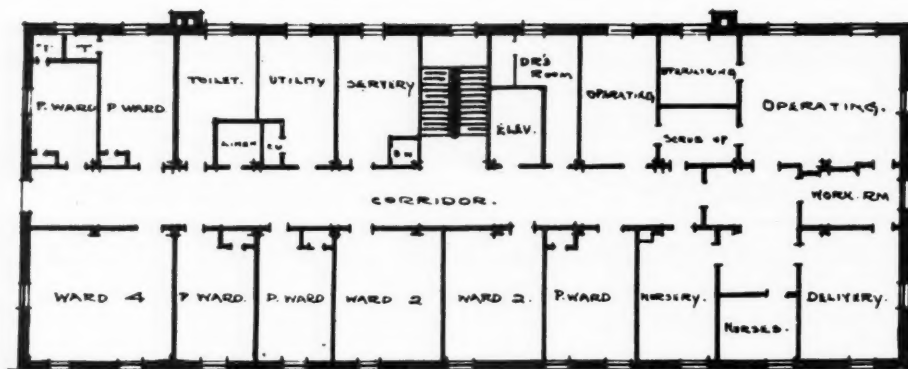
STATION K TORONTO

FLOOR PLANS OF ESTEVAN HOSPITAL

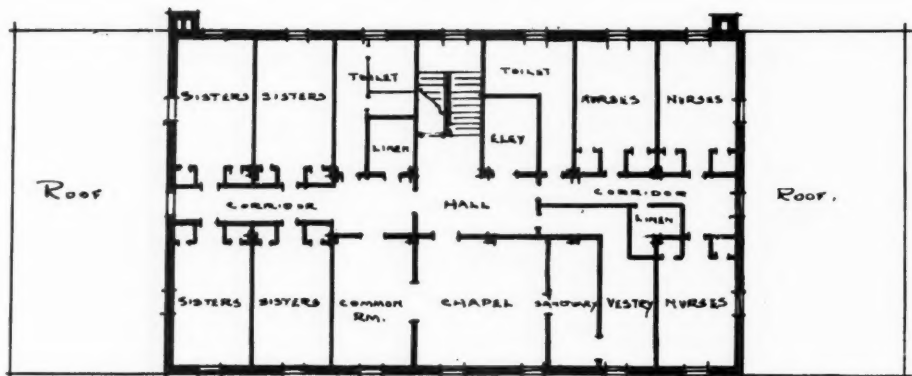
(See page 50)



First Floor



Second Floor

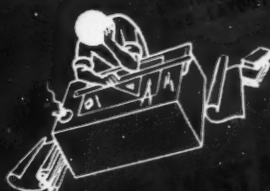


Third Floor

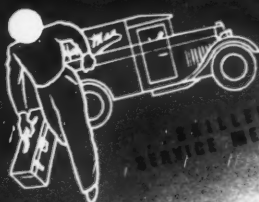
W. G. VAN EGMOND and
STAN. E. STOREY, Architects,
Regina.

CALL HOFFMAN

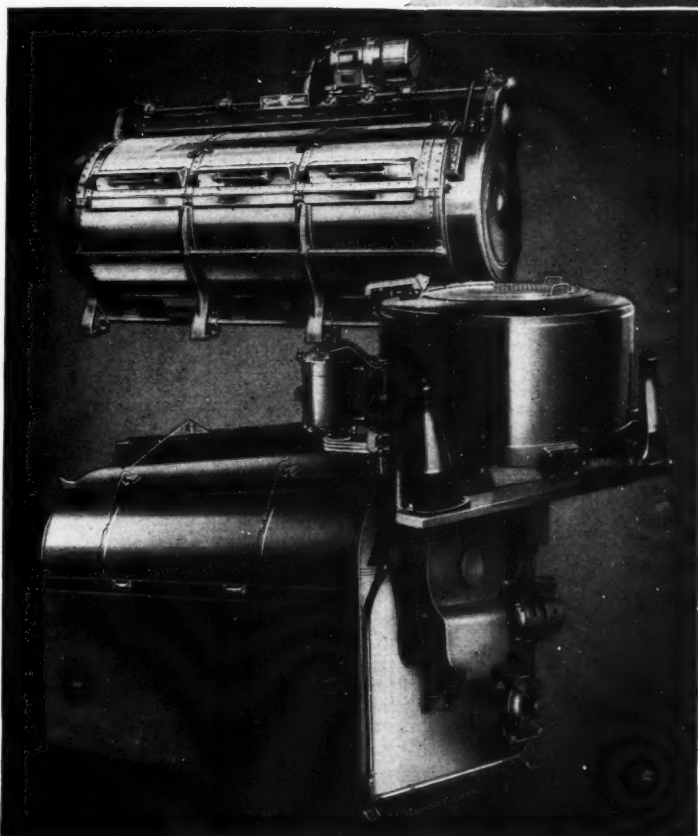
COMPLETE LAUNDRY
EQUIPMENT SERVICE
FOR THE INSTITUTION



AT YOUR
INSTANT SERVICE



SKILLED
SERVICE MEN



WASHERS

Hoffman Monel Metal Washers have a special appeal for the hospital laundry—where durability, slow depreciation and freedom from disruption of service are of highest importance.

EXTRACTORS

Hoffman extractors offer rapid starting and stopping—operate under full loads at high speed with less power—provide maximum extraction.

TUMBLERS

Hoffman-Vorclone tumblers use the low-temperature "Dry-By-Air" principle, pioneered by Vorclone. They provide the fastest lowest cost drying consistent with highest quality, soft-textured work.

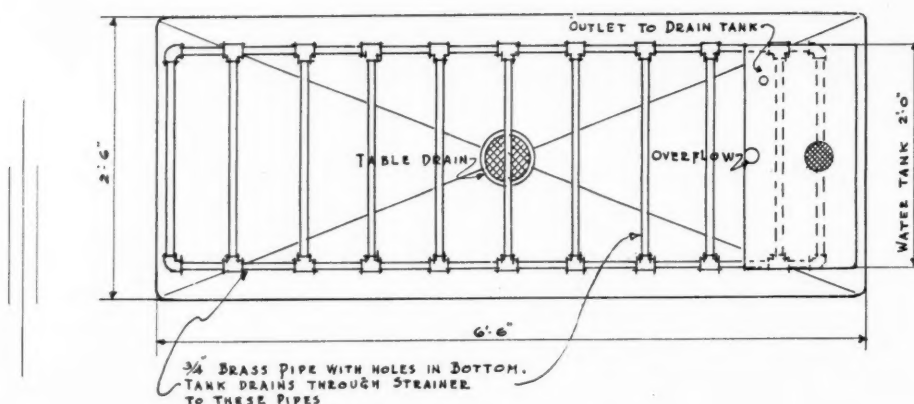
● The Hoffman organization—through its sales and engineering staff—offers a complete laundry equipment service—experienced laundry engineers to survey your present equipment; layout furnished without charge. For every laundry requirement — CALL HOFFMAN.

CANADIAN HOFFMAN

MACHINERY
COMPANY, LTD.

50-60 COLEMAN AVE., TORONTO, ONT.

• 3509 PARK AVE., MONTREAL, QUE.



~ P L A N ~

An Inexpensive Autopsy Table

Improvements at Minimum Cost

A HIGHLY serviceable type of autopsy table was observed recently at Orange Memorial Hospital, N.J., of which hospital Mr. F. Stanley Howe is the well known director. Water flows from an overhead rubber hose into a tank at the foot of the table. The temperature of this water can be regulated by virtue of its connection with hot and cold water pipes projecting down from the ceiling. This tank has an overflow drain which carries off the surplus of water. Half an inch below the level of this overflow drain is another funnel-shaped outlet, the top of which is screened. The water flows through this outlet down into a pipe rack on the table. The pipes which make up the rack are of brass and are perforated on the under side, with the result that the water flows out of the small perforations over the table top.

Without the pipe rack, the flat table top (2" thick slate) was not at all satisfactory, as the drain was easily clogged and the water then flowed over on to the floor. The advantage of this pipe rack with its multiple perforations is

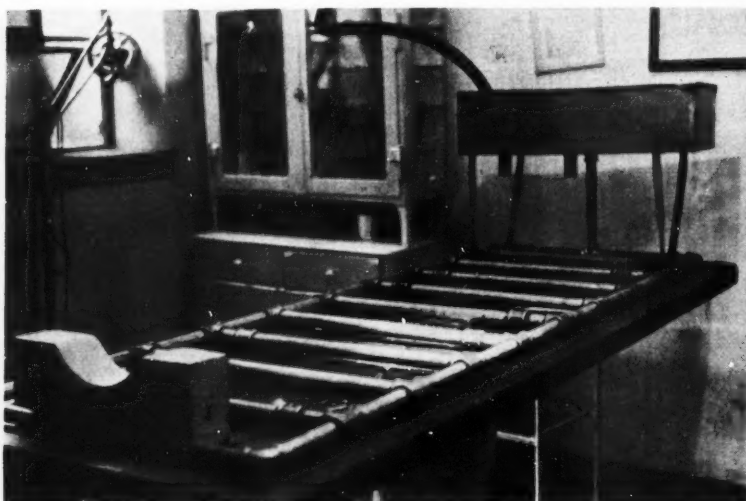
that the body is kept up off the table thus lessening the chance of the drain on the table becoming clogged and the water flowing over the floor. The even distribution of water on the table top from the perforations keeps the entire table top relatively clean.

The water in the tank is kept at a level of four and one-half inches. This reservoir of water is used to soak the sponges used in cleaning the body and also to rinse off any specimens removed from the bodies under examination.

It will be noted from the photograph that a strong overhead light gives excellent illumination to the field under dissection. By the window can be seen a portable extension light which permits focussing of strong illumination upon any part under dissection.

The arrangement was devised by the hospital pathologist and was built by the engineering staff. It has proven most satisfactory in use. The hospital engineer kindly furnished us with the scale drawings.

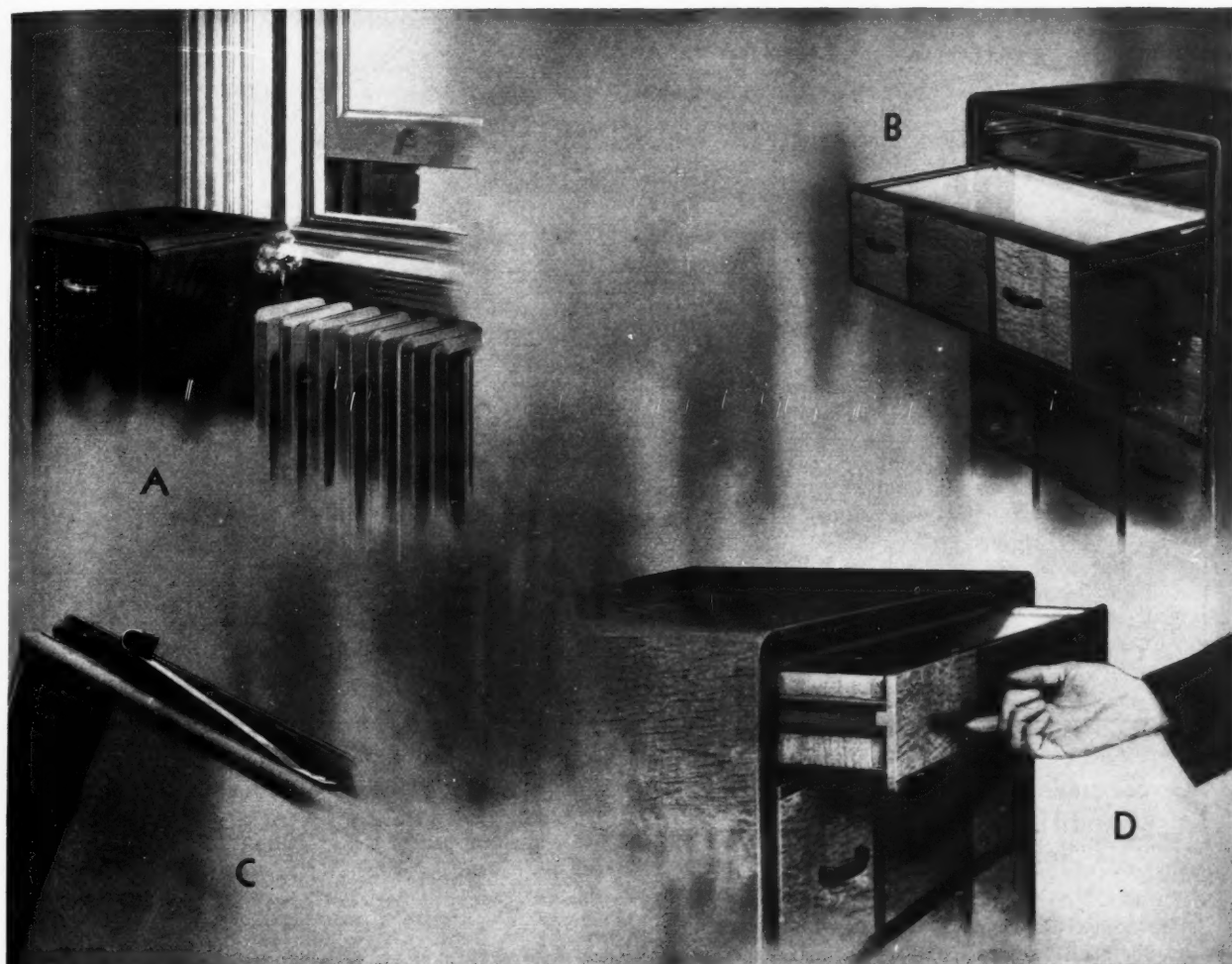
(See page 56)



Note the tank receiving water from overhead, with outlet connected to brass piping laid over the slate table top. Perforations are on under side of piping. Note portable light for special dissection.

HOSPITAL FURNITURE

must be able to take it!



SIMMONS *leads the field!*

Hospital Equipment must be able to **stand up** under the severest conditions—that is why Simmons Limited, for over forty years pioneers in metal bed construction, are to-day supplying Canada's hospitals from coast to coast. Simmons Hospital Furniture is built to the rigid specifications of eminent hospital authorities. And, it is built to **last!** Illustrated above are some of the outstanding features:

A. Depicts the durability of Simmons finishes, which are unaffected by heat or cold.

B. Illustrates the one-piece construction of top and sides, also electro-welded supports and bearers, all of which prevent shrinking or swelling and add to durability of furniture.

C. Shows special drawer stop, which prevents drawer from falling out when quickly opened. Easily released for cleaning.

D. Emphasizes ease of drawer operation due to special guides, also illustrated.

SIMMONS

MONTREAL

TORONTO

LIMITED

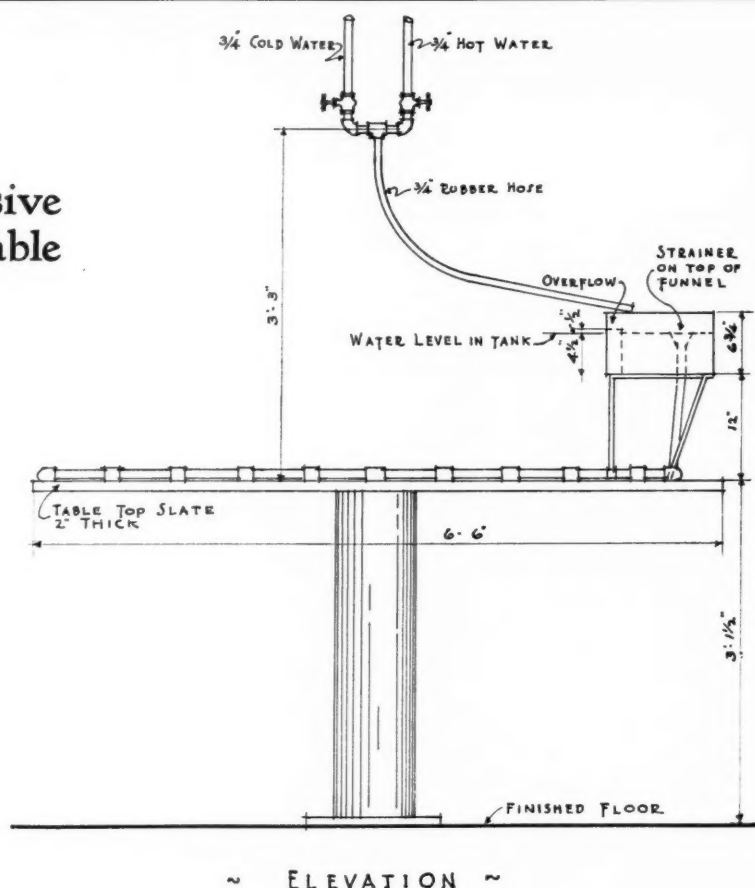
WINNIPEG

VANCOUVER

An Inexpensive Autopsy Table

(See page 54)

General scale diagram indicating the arrangements to direct the flow of water through tank and down through pipe rack.



Government Extends Medical Treatment and Hospitalization to Certain Non-Pensioned Veterans

By an Order-in-Council of January the 4th, 1939, regulations concerning medical treatment and hospitalization of veterans have been extended to include certain non-pensioned ex-service men. Treatment and hospitalization is now provided for former members of the forces who have had meritorious service in a theatre of actual war, but who have not been found to be suffering from a disability attributable to service, although requiring immediate treatment and being financially unable to secure such treatment for themselves.

Hospitalization will be provided by Department of National Health hospitals or those hospitals with which the Department has a contract and where treatment can be carried out under the supervision of a salaried medical officer of the department. Exemptions are made in cases of certain diseases, such as tuberculosis (except surgical tuberculosis) infectious diseases or contagious diseases, venereal disease, mental disease, alcoholism, drug addiction and chronic or incurable disease requiring prolonged periods of treatment. No man is eligible who is entitled to treat under the Sick Mariners' Fund, Workmen's Compensation, corporation insurance or other contract medical

attention. To be eligible applicants must fall within a certain income class.

General out-patient service and dental service, either in the out-patient department or in hospital, are included in the service.

Council Requests Removal of Tax on Radium

The Canadian Hospital Council has submitted a request to the Federal Government for the removal of the three per cent excise tax on radium which is produced in Canada and temporarily exported for the necessary processing. The present three per cent tax must, of necessity, be passed on to the patient, who often is unable to meet the cost. The removal of this tax would prove of great benefit to the hospitals, their staffs and the patient.

Inverness Hospital Destroyed by Fire

The Inverness County Memorial Hospital, Inverness, Nova Scotia, of which Rev. H. G. Wright, vice-president of the Canadian Hospital Council, is secretary, was completely destroyed by fire on February the 21st. All patients were safely removed from the 36-bed hospital by nurses and personnel, but the building could not be saved.

BASIC OPERATIONS IN COMMERCIAL CANNING PROCEDURES

VI. Cooling the Tin Container After Thermal Processing

● On this page we have previously described certain basic operations in commercial canning procedures. In this—the last of this series—we shall discuss the final basic operation, namely, the cooling of the sealed can immediately after the heat process.

One main reason for rapid and thorough cooling of the can contents—as soon as the objective of the heat treatment has been fulfilled—is more or less self-evident. Prompt cooling checks the action of the heat and thus prevents undue softening in texture or change in colour of the food. Also important, particularly in the case of foods of an acid nature, is the prevention of excessive chemical action between the food and the metal container, which may occur if the contents of the can remain hot for an extended period of time. In modern practice, two types of cooling are commonly used, namely, air cooling and water cooling.

Air cooling, as the name implies, involves cooling of the tin container by facilitating radiation of its heat into the air. This type of cooling is adaptable to certain products in small cans. In other products, or in the case of larger cans, it is employed chiefly when the slower loss of heat, characteristic of this cooling method, is essential either for preservation of the food, or for the production of certain quality characteristics in the final product. Modern air cooling is accomplished in well ventilated, specially designed warehouses where the cans are piled in rows, allowing ample

space between rows for efficient air circulation.

The several methods of water cooling and the technique by which they are carried out are detailed elsewhere (1). Briefly, water cooling may be effected in a variety of ways. The hot cans may be cooled by admitting water into the retort in which they were processed, or they may be cooled after removal from the retort by conveying the cans through tanks of cold, running water or through cold water showers. Large size, or irregularly shaped cans—processed under steam pressure—must be cooled in the closed retort at the end of the process to avoid undue strain on the containers. This is accomplished by “pressure cooling” in which pressure is maintained in the retort during the cooling of the cans, to counterbalance the pressure which develops during the process within the can itself. Commercially, cans are water-cooled to about 100°F. so that enough residual heat remains to dry the can exterior.

Present day canners are fully aware of the importance of cooling their products rapidly and completely as soon as the process is completed, in order to insure the production of canned foods with high quality characteristics. Consequently, in modern canneries the cooling operations are strictly supervised like the other basic operations in the commercial canning procedure. After inspection and labelling, the cooled cans are then ready to enter distribution channels for delivery to the consumer.

AMERICAN CAN COMPANY

MONTREAL - HAMILTON - TORONTO

AMERICAN CAN COMPANY, LTD. - VANCOUVER

(1) 1936. A Complete Course in Canning, 6th Ed. The Canning Trade, Baltimore.

The Round Table Forum

7. Under What Circumstances do you Permit Pupil Nurses to Smoke?

Rev. Sister Columkille, R.N., B.Sc., Directress of Nurses, St. Paul's Hospital, Vancouver, B.C.

A FEW years ago this question would have received a decisive answer in the negative. Smoking among women would not have been tolerated under any circumstances. At that time smoking was not usual among women; but to-day customs have changed and the problem of smoking by student nurses must be faced and solved.

The rules forbidding smoking while in uniform, whether on or off duty, or while in their own rooms, should be strictly adhered to, but some compensatory medium should be furnished. The habit of smoking has become generalized except for the chosen few. In enforcing the penalty of dismissal for violation of the prohibition, there is danger of ruining the career of one who might otherwise become a most efficient nurse.

While smoking is an unhealthy practice and one that is contrary to hygienic principles, it is not morally wrong. Neither can it be stopped by any rule or regulation that might be promulgated.

By providing facilities in the Nurses' Home for those who desire to smoke, much would be done to eradicate the bad habit which has already been formed of going elsewhere to seek this relaxation in places where discussions of patients, diseases, doctors and administrators are held at great length, and this within the hearing of non-professional customers; much loss of time would likewise be avoided.

There would be more contentment and co-operation among the student nurses. Needless to say, necessary rules should be made to govern such a situation. No nurse should be permitted to enter the "smoking room" in uniform and precautions against the fire hazard should be taken.

Furthermore, the written permission of the parents of all students under twenty-one years of age, expressly allowing their daughters to smoke, should be demanded.

It is my honest opinion that sooner or later this privilege will have to be conceded and while I look upon it as a necessary evil, times and customs must be taken into consideration. The old adage may here be applied, "What cannot be cured must be endured".

E. F. Baker, Superintendent, St. Andrews Hospital, Midland, Ontario.

Under no circumstances do we permit pupil nurses to smoke.

Question for Next Month:

Where Interns Cannot be Obtained, What Clinical Duties Might Reasonably be Assumed by a Specially Qualified Graduate Nurse?

Personally, I am decidedly opposed to women smoking, and especially nurses. It does not belong to a nurse. A nurse cannot consistently sign the Florence Nightingale pledge and smoke. A very good article in *The Reader's Digest*, August, 1938, entitled "So you are Going to Stop Smoking", shows that those who indulge in smoking are creatures of their habits rather than creatures of their environment. We as nurses, are supposed to be health teachers—we should be examples for good. I firmly feel that large hospitals, ladies' schools and colleges should take a strong stand against the smoking and beer drinking habit.

S. Giroux, R.N., Superintendent of Nurses, Hopital Saint-Luc, Montreal.

Seventy-five per cent of the young women applying to be nurses have already acquired the habit of smoking.

Should smoking be forbidden to nurses? My answer is no.

Smoking is not bad in itself, but nurses should always keep in mind that they should never approach a patient with the smell of cigarettes on their breath or clothing. Our policy is to allow smoking in one special room only, after duty hours, and in time off during the day.

E. Muriel McKee, Superintendent, Brantford General Hospital, Brantford, Ontario.

Residence life for student nurses, including affiliate students in our school, is regulated by the students themselves under Student Government Association. So far, smoking in the residence is not permitted. This decision is based on the fact that the majority of the nurses do not smoke and also the parents of many of them strongly object to this habit and would resent the practice being sponsored. It is felt that the opinion of the majority should be considered.

There are no rules in regard to smoking out of hospital and residence, but we do ask each nurse to consider the suitability of time and place and refrain from smoking if in so doing she is likely to bring discredit to her school and to the nursing profession. Nurses should never under any circumstances smoke in uniform, and, if smoking in off duty hours, should be meticulous in their oral hygiene before returning to duty so as not to be objectionable to the patients. We are all agreed that smoking in individual rooms is a very dangerous practice and should never be permitted. A smoking room would have to be provided in

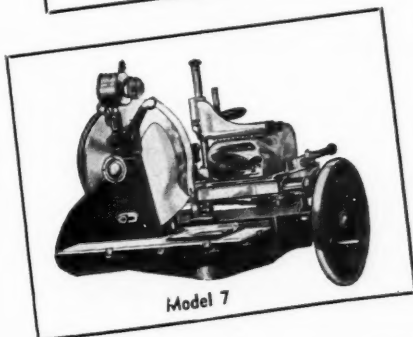
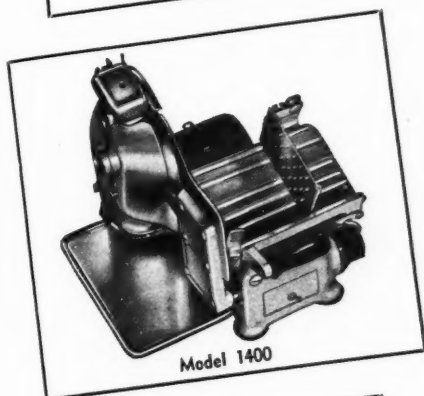
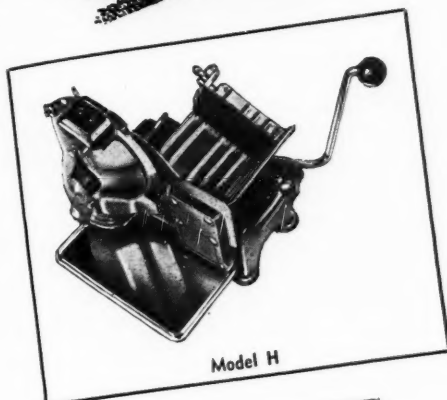
(Continued on page 84)

Berkel Slicers

BERKEL BUILDS A SLICER

SUITABLE FOR EVERY HOSPITAL

25 BEDS, or 2,500 BEDS!



A FOOD SLICER suitable for a small Red Cross Outpost Hospital is not likely to be the right machine for a hospital like the Toronto Western, or for the large Provincial Mental Hospitals.

. . . that is why BERKEL builds a Complete Line of Food Slicers — a dozen different models—one to meet each and every possible requirement.

. . . and that is why BERKEL offers maximum results and the greatest value in efficient Slicing Machine Equipment.

May we send you descriptive folders?

BERKEL PRODUCTS CO.
LIMITED

533-535 College Street - TORONTO

Representatives Everywhere



MARCH, 1939



Out Patient Department of the St. Boniface Hospital

THE opening of the new Out Patient Department Building marks another milestone of achievement in the annals of public service rendered by the Grey Nuns to the people of Manitoba. It is, moreover, a small memorial marking the 200th anniversary of the ideals and activities initiated by that Canadian pioneer of social service, the Venerable Mother d'Youville, foundress and inspirer of the Order so widely known throughout the length and breadth of Canada. It is most fitting therefore, that this new structure be dedicated as another tribute to her revered memory and to her ever enduring humanitarian mission.

Provision for the treatment of ambulant patients has always been available at St. Boniface Hospital, but it was not until May of 1924, that a separate department was organized. In March of 1926, the facilities of the department were materially augmented by the establishment of a free Dental Clinic. This was a gift from the Kiwanis Club of St. Boniface who not only donated all equipment but generously defrayed all the expenses of maintenance for a period of two and one half years.

The steady growth of the Dispensary's popularity with the public is reflected in the following brief summary of selected statistics:

Year	New patients received	Consultations	Homes visited	Prescriptions	Meals given
1926	2,115	9,989	576	4,986	401
1938	3,258	47,448	238X	9,827	1,428

To October 31.

X—This figure does not include venereal case visits.

The new building embodies the essentials of dispensary requirement combined with those features necessitated by recent advances in medical and social science. Innovations provided include the following features:

- 1.—An increased number of clinic rooms fitted out for the various specialties.
- 2.—Extension and modernization of the facilities for providing clinical instruction to students of the third and fourth years in medicine.
- 3.—Provision of an assembly hall earmarked for the use of the attending medical staff in which scientific meet-

ings, conventions and discussions may be held. Such constitute an important phase of medical activity and are of course designed primarily for the benefit of the public.

- 4.—Increased laboratory and X-Ray service. While the hospital maintains a fully equipped laboratory, the volume of work in the Dispensary entails the establishment of a sub-laboratory, fitted and equipped to handle those investigations specifically demanded in out patient practice.

Diagnostic art is gradually succumbing to the encroachment of the X-Ray. Modern methods in all fairness to the patient demand the increasing employment of this marvellous adjunct. A clinical diagnostic set has been installed as a self-contained unit. It will be available to every patient who presents indications therefor.

- 5.—Social service amenities.

It has long been recognized that a patient's ailments may in large measure proceed from the incompatibilities of his social surroundings. Failure to investigate these may prejudice all chances of curing him. All patients attending the Dispensary are given the benefit of a social as well as a medical examination. To this end additional space and expert personnel are provided.

An important part of this service consists in home visiting. This gives us a clearer insight into the medical-social problems with which our patients are confronted. The visiting nurse is trained to discover social difficulties and these are reported to the responsible physician. The co-relation of body and social ailments provides a more adequate picture of the patient's distress. Reference of the matter to the various Social Agencies and the support thereby obtained will after provide the means of enabling the patient to overcome his disability and shoulder his burden with a new outlook on life.

The nursing visitor is able to carry out treatments in the home, give advice on matters of hygiene and generally help patients to overcome hundreds of minor difficulties that would otherwise cloud their already unhappy situations.

(Continued on page 62)

SIEMENS-REINIGER (Canada) LTD.

Established 1932

HEAD OFFICE

MONTREAL — 18 Dominion Square Bldg.

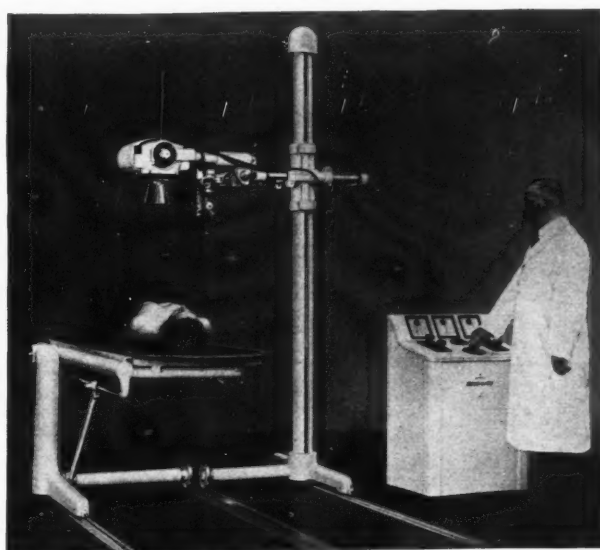
BRANCHES

TORONTO
9 Wellington St. East

WINNIPEG
608 Lombard Bldg.

VANCOUVER
216 Med. Dental Bldg.

We Invite Your Enquiries



The Siemens Camera-Helioscope Combination is the most Modern X-Ray Unit. It is Completely Shock- and Ray-Proof. Ideal for the Small Hospital.

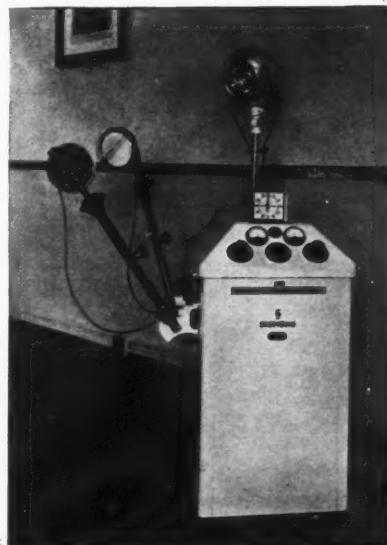
Siemens: Means

**Safety
In
Electro
Medical
Equipment
Never
Surpassed**

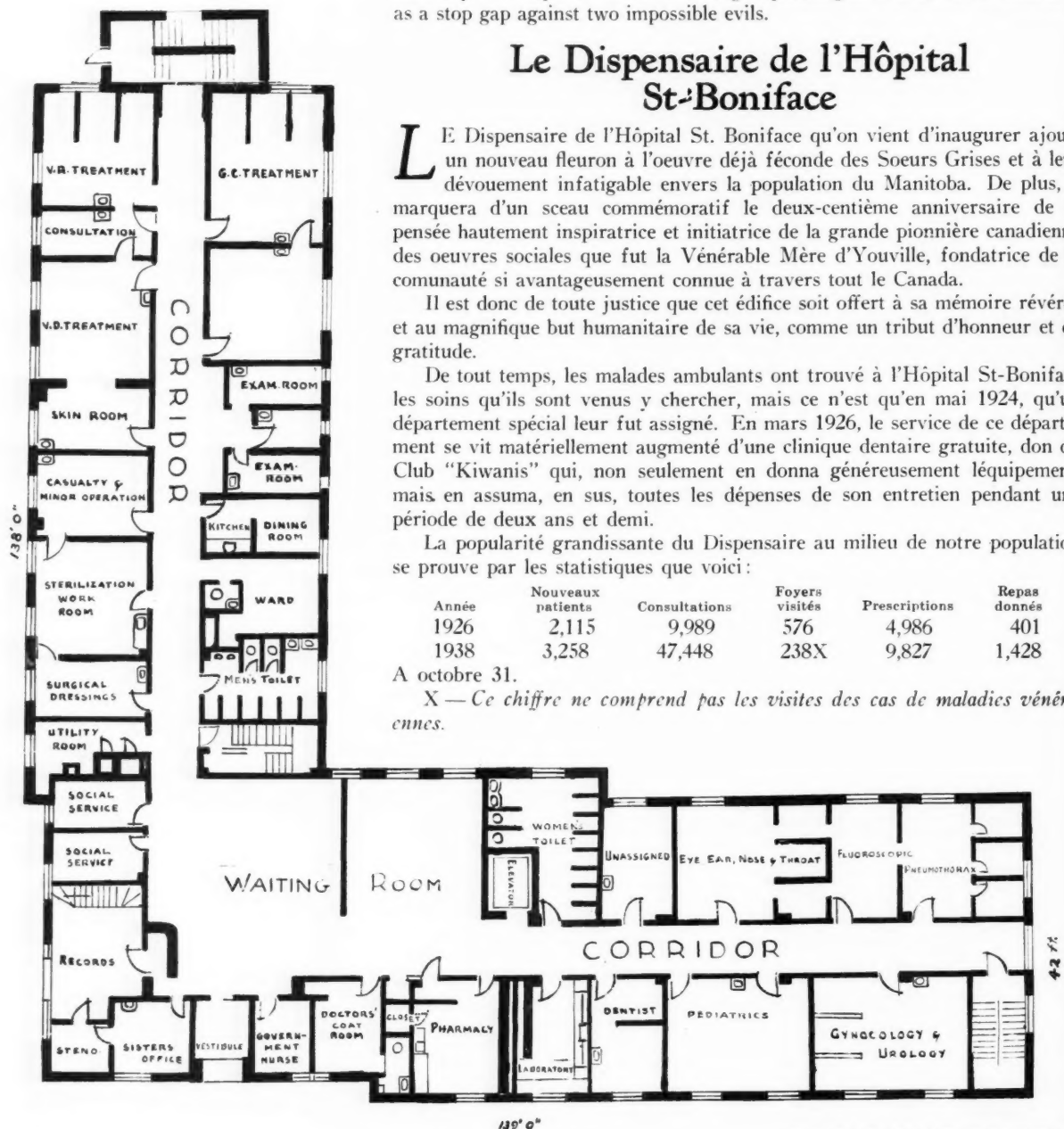


← Our Cadmium Ultra-Violet Lamp is New, it is the Latest in Lamp Construction —No Mercury—No Ozone—Powerful—Flexible — Inexpensive to Operate — Guaranteed Burner Life.

6000 ULTRATHERMS →
6000 SATISFIED USERS
is a Record which no other Short Wave Apparatus can equal. The Ultratherm still leads the field. Easy to operate with any type of Electrode or Coil. Metered Guaranteed Tubelife.



Out Patient Department of St. Boniface Hospital



The new out patient block, erected at a cost of approximately \$145,000.00 will be virtually non-productive of monetary income, despite the fact that the Department of Health and Public Welfare contribute each year the equivalent of \$10,000.00 in cash and drugs for the maintenance of the Venereal Clinic. It may be asked, why embark on an enterprise foredoomed to financial failure? Why knowingly create a perpetual deficit?

The answer cannot be sought in criteria dealing with dollars and cents anymore than an individual can set an accurate monetary value on one of his fingers. The chief purpose of a dispensary is to provide care for the sick who cannot afford private attention and who do not require hospitalization. It is an unfortunate fact that many persons in every community find themselves in these circumstances through no fault of their own or the doctors. If no dispensaries existed, our social health structure would condemn these unfortunates to either go unattended or to enter the public wards of our hospitals. The former is untenable, the latter is financially absurd since the high cost of hospitalization is unwarranted in the case of ambulant patients. Hence the necessity for dispensaries which though operating at a loss, serve admirably as a stop gap against two impossible evils.

Le Dispensaire de l'Hôpital St-Boniface

LE Dispensaire de l'Hôpital St. Boniface qu'on vient d'inaugurer ajoute un nouveau fleuron à l'oeuvre déjà féconde des Soeurs Grises et à leur dévouement infatigable envers la population du Manitoba. De plus, il marquera d'un sceau commémoratif le deux-centième anniversaire de la pensée hautement inspiratrice et initiatrice de la grande pionnière canadienne des oeuvres sociales que fut la Vénérable Mère d'Youville, fondatrice de la communauté si avantageusement connue à travers tout le Canada.

Il est donc de toute justice que cet édifice soit offert à sa mémoire révéérée et au magnifique but humanitaire de sa vie, comme un tribut d'honneur et de gratitude.

De tout temps, les malades ambulants ont trouvé à l'Hôpital St-Boniface les soins qu'ils sont venus y chercher, mais ce n'est qu'en mai 1924, qu'un département spécial leur fut assigné. En mars 1926, le service de ce département se vit matériellement augmenté d'une clinique dentaire gratuite, don du Club "Kiwanis" qui, non seulement en donna généreusement l'équipement, mais en assumait, en sus, toutes les dépenses de son entretien pendant une période de deux ans et demi.

La popularité grandissante du Dispensaire au milieu de notre population se prouve par les statistiques que voici :

Année	Nouveaux patients	Consultations	Foyers visités	Prescriptions	Repas donnés
1926	2,115	9,989	576	4,986	401
1938	3,258	47,448	238X	9,827	1,428

A octobre 31.

X — Ce chiffre ne comprend pas les visites des cas de maladies vénériennes.

Lysol

PRICE CUT 29%

FOR HOSPITAL DISINFECTING

Reduced from \$1.75 to \$1.25 per Gal.
You Now Save 50c per Gal.



LYSOL has always cost less to use. Because Lysol, with its high phenol coefficient of 5, is actually **twice as powerful** as cresol compound U.S.P., when tested with *B. typhosus*, the germ specified for the bacteriological evaluation of disinfectants. It takes **less** Lysol to do the job. For, in order to get disinfection to that of the proper Lysol solution, you may have to use up to, or more than twice as much of so-called cheap cresol disinfectants.

LYSOL is **harmless**. As a general disinfectant, and for exacting disinfectant and antiseptic requirements, Lysol, used in the proper dilutions, is harmless to tissue, fabric, rubber, and costly instruments.

LYSOL now **saves you more than ever**. At the new low price for institutional purposes, Lysol now saves you 50c more on every gallon you use. Sold in 5 and 40 gallon containers, and sent to you, freight prepaid to station at any destination in Canada.

Order Lysol Today

FROM

LEHN and FINK (Canada) LIMITED
9 DAVIES AVENUE - - - TORONTO, ONT.

**Start New Economy Today
Mail This Coupon Right NOW!**

LEHN & FINK (CANADA) LTD.,
Dept. C.H.3, 9 Davies Ave., Toronto, Ont.

I wish to start right away the EXTRA saving provided by the new low price of Lysol. Please send me, freight prepaid

- ☐ 5 gallon container(s) of Lysol at \$1.25 per gallon.
☐ 40 gallon container(s) of Lysol at \$1.25 per gallon.

Hospital

City Prov.

Signature

Le nouvel édifice renferme tout l'essentiel requis d'un dispensaire, combiné de ce qu'il y a de plus moderne pour satisfaire aux progrès de la science médicale et sociale.

Voici les principales innovations :

- 1.—Un nombre augmenté de salles de clinique affectées aux spécialités diverses.
 - 2.—L'expansion et la modernisation des moyens d'études cliniques pour les étudiants de troisième et quatrième année de médecine.
 - 3.—Un auditorium où se tiendront les réunions d'études scientifiques, les conventions et consultations : toutes choses qui représentent un important facteur des activités médicales, et qui ont pour but initial le bien du public.
 - 4.—Laboratoire et service de Rayons-X perfectionnés. Cependant que l'Hôpital St-Boniface a un laboratoire parfaitement équipé, la somme de travail du Dispensaire exigeait l'installation d'un laboratoire-auxiliaire, équipé et adapté aux recherches spécifiques en rapport avec la clinique.
- L'art du diagnostic cède graduellement du terrain à l'emprise du Rayon-X. Pour se conformer aux méthodes modernes, un appareil auxiliaire de fluoroscopie à l'épreuve des chocs a été installé, et sera à la disposition de tout patient dont le cas en réclamera le service.
- 5.—Visites à domicile.

On n'ignore pas que les malaises d'un patient peuvent provenir dans une large mesure d'une mauvaise ambiance. Faute d'enquête, toutes chances de le guérir risquent d'échouer. Les malades se présentant au Dispensaire sont l'objet d'un intérêt spécial, tant au point de vue moral que physique. A cette fin, un endroit spécial et des spécialistes sont à leur disposition.

L'un des rôles importants de ce service est la visite à domicile. Ce moyen nous donne une vue plus nette des problèmes médico-sociaux dans lesquels nos patients se

meuvent. La Garde-malade du Service, par sa formation antérieure, est en mesure de découvrir les difficultés sociales qui sont ensuite rapportées au médecin en charge. L'intime relation des maux individuels et sociaux donne une idée plus adéquate de la misère du patient. Après en avoir conféré avec les Sociétés de bienfaisance et s'en être assuré l'appui, il sera plus facile d'aider le patient à surmonter son impuissance et à supporter ses épreuves avec plus de courage.

La Garde-malade du Service peut donner certains traitements ou cours de ses visites, indiquer des moyens d'hygiène et aider les malades à surmonter maintes petites difficultés qui suffisent parfois à augmenter leur malheureuse situation.

La nouvelle bâtisse érigée au coût approximatif de \$145,000.00, ne rapportera guère au point de vue pécuniaire, malgré la contribution annuelle du Département d'Hygiène, équivalent à \$10,000.00 en argent et médicaments pour l'entretien de la clinique des maladies vénériennes. On se demandera : "Mais pourquoi alors donner dans une entreprise vouée d'avance à des embarras financiers ? Pourquoi, en connaissance de cause, se créer un perpétuel déficit ?

La question ne se pose pas plus qu'il n'est possible à un individu d'évaluer un de ses doigts. Le but principal d'un dispensaire est de secourir les malades incapables de se payer des soins privés, et qui ne requièrent pas l'hospitalisation. Un trop grand nombre de gens, disséminés un peu partout, se voient dans ces pénibles circonstances sans qu'il soit de leur faute ou celle des médecins. Si les dispensaires n'existaient pas, combien d'infortunés seraient ou privés de soins ou forcés de se faire hospitaliser. La première hypothèse répugne. La deuxième est un non-sens. Car étant donné le coût de l'hospitalisation, comment se résoudre à s'interner, quand on peut s'en dispenser ? De là la nécessité et le bienfait du Dispensaire qui se dresse comme un rempart contre ces deux maux.

Provincial Departments of Health to Receive "Iron Lung" Applications

The Canadian Hospital Council has received the following information relating to the distribution of the Lord Nuffield respirators from the Department of Pensions and National Health.

"The method of the distribution of the 'iron lungs' has been arranged through the High Commissioner for Canada, by Professor McIntosh of Oxford, England, who was appointed by Lord Nuffield as Trustee for such distribution.

"The High Commissioner for Canada in London forwarded a Despatch in the matter to the Department of External Affairs, who passed same on to this department. We have communicated with the Provincial Departments of Health, requesting a list of hospitals in each province which are desirous of obtaining one of these respirators. Freight charges from Oxford, England, to their destination in Canada, will be payable by the hospital authorities accepting this equipment. Any hospital not maintained for profit will be eligible to ask for an 'iron lung', provided they advance the cost of transportation.

"All applications should be forwarded to the Provincial Department of Health."

American College of Hospital Administrators Announces Honours

Four Canadians will be honoured when the American College of Hospital Administrators will hold its annual Convocation at the Toronto convention next September.

Signal honour will be paid Mme. L. de G. Beaubien of Ste. Justine Hospital, Montreal, upon whom honorary fellowship will be conferred. Mme. Beaubien is the second Canadian to be so honoured and will receive her degree with three internationally known hospital workers, Dr. W. Alter of Germany, Honorary Secretary of the International Hospital Association; Rev. Joseph S. O'Connell of New York City, outstanding hospital leader, and Dr. René Sand of Belgium, first president of the International Hospital Association.

Rev. Sister M. Immaculata of Antigonish, Nova Scotia and Rev. Sister M. Ignatius of St. Joseph's Hospital, Glace Bay, Nova Scotia, will be received as fellows by the college. Mr. Leonard P. Goudy, superintendent of the Saskatoon City Hospital will be received into membership.

HOW EASILY IT ROLLS

ON

Bassick CASTERS

TO ELIMINATE CASTER TROUBLES

Specify Bassick equipment for beds, over-bed and bed-side tables, food and supply trucks, stretchers and all other portable furniture and equipment. There is a Bassick type designed for every caster need.

Most manufacturers of hospital equipment standardize on Bassick products. To save costly replacements later, specify Bassick on all purchases of new furniture and equipment.

Have you seen our new Catalogue No. 130 specializing in casters for institutions? We will gladly send you a copy on request.

Bassick

DIVISION

STEWART-WARNER-ALEMITE CORPORATION OF CANADA, LIMITED
BELLEVILLE ONTARIO

Also Manufacturers of

Stewart-Warner Radio, "South-Wind" Car Heaters, Alemite Lubricating Systems and Equipment, Lubricants and Motor Oil, Automotive Hardware.

New Pavilion for The Brantford General Hospital, Brantford, Ontario

By MISS E. M. McKEE, Superintendent, and
HAROLD J. SMITH, Architect

FOR over ten years the Brantford General Hospital has been looking forward to the day when a new pavilion would be added and other necessary improvements undertaken. In 1929, after several years of study, the Board of Governors was prepared to erect a new wing to provide improved private and semi-private accommodation together with new administration offices, etc.; an isolation pavilion was also under consideration.

However, before definite instructions were issued to proceed with the work, the depression was upon us and all thoughts of a building programme were tentatively abandoned.

In the next few years the picture changed; those who had been accustomed to or would desire private ward accommodation now wanted semi-private wards, and people who previously would have used semi-private wards could now only afford public ward accommodation. This condition prevailed until about two years ago when there began to be a slightly increased demand for private and semi-private wards.

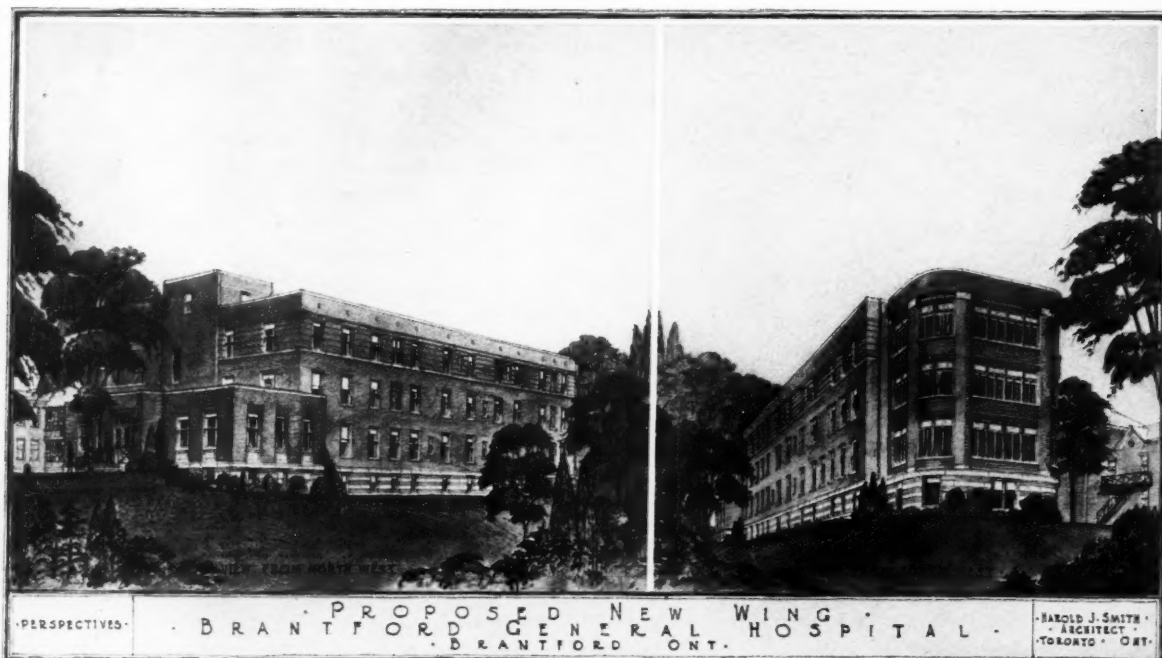
With this improved demand for accommodation the Board of Governors in 1937 again decided to proceed with a new pavilion, a successful vote of the citizens of Brantford was taken that fall, the architect was appointed and

the active study of requirements and plans was undertaken.

A factor influencing present plans is that many patients now paying \$2.35 in the public wards would like to pay an additional amount for better accommodation but are unable to pay for a two bed semi-private ward. It is proposed, therefore, to have four bed wards with adjoining toilets for these patients. Influencing these plans also is the fact that the hospital has agreed with the city to provide sufficient isolation accommodation to take care of the usual demand, as well as epidemics as they may arise from time to time. Having all these things in mind a very flexible plan for the new pavilion has been worked out which will give excellent modern accommodation for all classes but in an emergency will be immediately available for infectious cases.

It is intended that the present private wards, which are adjacent to the medical division, will be used as an isolation unit, but should this accommodation prove insufficient in time of emergency, the lower floors of the new wing will be ideal for this purpose.

The new unit will permit the overcrowding in the present large public wards to be reduced and these will then be divided into cubicles. The new pavilion is to contain four





Typical Metal Craft Installation . . . Beds, Tables, Cabinets and Cubicle Curtain Equipment in the new Welland County Hospital.

The Most Complete Metal Equipment Service in Over Twenty-Five Years Association with Canadian Hospitals and Institutions!

New and improved facilities for the design and manufacture of Metal Equipment of all types . . . a competent advisory and consultation board . . . and an intimate knowledge gained through over a quarter-century's experience . . . enables the Metal Craft Company Limited to extend still further the scope of its service to Canadian Hospitals and Institutions.

However large or small your need may be . . . from the planning of a complete installation to the purchase or renovation of a single piece of equipment . . . you will find it convenient and profitable to consult METAL CRAFT for suggestions and estimates.

THE METAL CRAFT CO. LIMITED
Designers and Manufacturers of Complete
Hospital Equipment:

**PRIVATE ROOMS — WARDS
OPERATING ROOMS
KITCHENS and DIET KITCHENS**

**Metal Furniture — Cabinets
Cubicle Curtains, etc.**

Write to us, or your nearest Metal Craft dealer for your requirements . . . and make full use of our Engineering and Planning Service, whether you consider modernizing present equipment, a completely new installation or the addition of individual pieces of equipment.

Ask for Details of Our Reconditioning Service.

**SPECIALISTS
IN METAL EQUIPMENT**



**FOR OVER A
QUARTER CENTURY**

floors, the lower or ground floor being well out of grade on the west and south side thus providing excellent accommodation for nurses' class rooms. On this floor will be two large general classrooms and a demonstration room which can be opened into one large room for special functions. Adjoining this will be diet teaching and students' laboratory rooms and instructors' office.

While this accommodation is frequently provided in the nurses' residence, there is no space available there in this case and it is considered that this new arrangement will be of greater convenience to all concerned since it is nearer the "heart" of the institution.

In addition to the above, the floor also accommodates a room for Ladies Auxiliary, special nurses' and staff locker room, ambulance entrance and record rooms.

The first floor will have at the north end the main entrance to the institution, adjoining which will be the general administration offices for Superintendent, Secretary, accounting, waiting room and doctors' coat room. Leading from these to the present buildings of the hospital will be a passageway which connects with the lower three floors of all buildings.

The administration portion of the first floor is conveniently separated from the balance of the floor which is for patient accommodation and contains five wards with four beds, one with two beds and a single bedroom for quiet room. Between each two of these is a toilet and sub-sink room service thus making one six and two eight bed nursing units.

The second floor contains nine two-bed wards with toilet accommodation between each two and one single-bed ward with individual toilet unit to serve as a quiet room. This latter and one two-bed ward are being especially designed for the care of psychiatric or noisy cases so as not to disturb adjoining rooms.

The third floor contains twelve private rooms all of which have private toilets; four of them share two private bath rooms.

On each floor for patient accommodation general service rooms are provided, i.e.: servery, utility, surgical, dressings, bath, maids' and nurses' stations and public waiting rooms.

The hospital is located on the hill which skirts the north easterly city limits and from the three solarium at the south end of the building the patients may command a view of the surrounding community in three directions.

Fireproof Construction

The building will be fireproof and thoroughly modern in all respects. Flooring of patients' rooms and adjoining corridors will be linoleum; service rooms will have terrazzo or with terrazzo or tile dados. The class room, solarium and main entrance floors will be finished with mastic tile. Windows generally will be double glazed and weather-stripped, with those on staircases connecting passage, porte-cochère and in certain toilet rooms being built with modern glass blocks, all of which will aid in keeping the building cooler in summer and warm in winter. All service rooms, toilets, and four bed wards will have mechanical ventilation with separate fans for each group.

Plumbing and electric fixtures will be especially designed for hospital purposes. Private and semi-private

rooms will have indirect lighting from wall brackets and all rooms will be wired for radios. All floors will be served by a modern electric elevator and a service dumb waiter. Refrigeration will be separate for this building and of modern electric type.

Extensive use will be made of acoustical and sound deadening materials. A modern silent nurse call system will be installed and provision made for doctors' electric register and silent signal system.

The exterior design of the building will tend toward modern lines but will be in keeping with the existing buildings. It will be of brick to match the latter and trimmed with Indiana limestone.

It is not anticipated that Brantford will require more bed accommodation for many years to come, so that the next programme will probably be the re-arrangement and modernization of the maternity department and the surgical operating room suite.

Appointed to Editorial Board



R. Laporte, Superintendent, Hospital Notre-Dame, Montreal.

Heavy Loss Caused by Quebec Mental Hospital Fire

Only a few months after the provincial government had promised \$1,000,000 for improvement and fireproofing of St. Michael the Archangel Hospital, huge Quebec asylum, fire swept through the institution and caused damage estimated at a million and a quarter dollars. The fire began on February the 16th and burned on into the next day, but by midnight all of the 2,800 patients had been removed from the buildings and temporarily housed. One death occurred during the evacuation and that was from natural causes. The fire is believed to have been started by a pyromaniac.



GERMICIDAL EFFICIENCY

'DETTOL' owes its ever-increasing use to the fact that it is non-poisonous, gentle to human tissue and combines high germicidal efficiency with cleanliness and pleasantness.

'DETTOL' has effective penetrating power and can be used at really efficient strengths without discomfort or even staining — marked advantages over carbolic and cresylic antiseptics. Its high bactericidal power is maintained in the presence of blood and other organic matter. A 2% solution rapidly kills hæmolytic streptococci and B.Coli even in the presence of pus.

'DETTOL' Antiseptic is a clean, clear, non-poisonous fluid, with a most agreeable odour.

Available from your druggist or supplier in convenient prescription size bottles or larger containers for medical and hospital use. Samples and full information on request.

Reckitts (Over Sea) Ltd., Pharmaceutical Dept., 1090 Amherst St., Montreal, P.Q.



'DETTOL' The Modern, Non-Poisonous Antiseptic

A Complete and Dependable Line of Laundry Machinery and Supplies

Made in Canada from Canadian materials by Canadian workmen.

Our efficiency men are at your disposal if you have a problem in your Laundry.

Washers
Extractors
Ironers
Presses

High Quality
Laundry Supplies
of all kinds.

The Beaver Laundry Machinery Co. Limited

MONCTON, N.B.

MONTREAL

TORONTO

OTTAWA

Western Agents: HARRISONS & CROSFIELD, PATERSON, FRASER LTD.
Winnipeg — Calgary — Edmonton — Vancouver

The Planning of Operating Pavilions

WHILE a good surgeon with able assistance may be able to accomplish excellent work under the most adverse physical conditions, it is generally agreed that it is to the advantage of all concerned to have the surgical pavilion so designed that approved technic may be facilitated, functional efficiency assured and technical equipment made readily available.

Because of the difference of technic and requirements of different groups of surgeons, it has never been found possible to design a single surgical pavilion which will suit all hospitals, and so it is imperative, when the planning of such a unit is under consideration, to study carefully the specific requirements of that institution, incorporating therein such local variants as may be necessary to meet the requirements of those who are to work therein.

I am indebted to Dr. Wm. H. Walsh, hospital consultant of Chicago, for the following suggestions germane to the question under discussion. He was kind enough to prepare for this work two sketches of operating pavilions, one for a hospital with from 100 to 200 surgical beds, and another designed for an institution with from 400 to 500 surgical beds. No attempt has been made to show the layout of the surgical operating facilities required for a small general hospital for the reason that because of the restricted space therein available many of the facilities provided in the larger institution must be omitted. The sketches shown, however, may serve as an excellent guide to those who are obliged for lack of space, to work in more restricted quarters. A description of the sketches follows:

Figure I.

Attempting to show an ideal layout for the surgical operating pavilion of a hospital with from 100 to 200 surgical beds, this section of the hospital should preferably be located on the top floor of a building of sufficient height and area to accommodate the number of beds for which it is designed.

1. This space is provided for the storage of a special urological or fracture table while one or the other is in use. Thus, room No. 3 may be used for a double purpose by simply changing tables. 2. Major operating rooms, when possible, are planned in pairs and between them provision is made for water and utensil sterilization and surgeons' wash-up sinks. This arrangement provides ready accessibility of hot and cold sterile water, permits the sterilization of instruments and sutures with the least possible delay, and gives the surgeons direct access to operating rooms after scrubbing up. 3. As elsewhere noted, it is desirable to provide the facilities for X-ray examination in the operating section and these are usually so located as to be accessible to two separate operating rooms. In this instance the X-ray generator is in space No. 14, thus making it available for genito-urinary and orthopedic work in No. 3 and any other use desired in the minor operating room No. 7.

4. In this sterilizing room provision is made only for sterile water and instruments, and autoclaves are located adjacent to the nurses' workroom. 5. The surgeons' scrub-up sinks usually located between two operating rooms, are convenient to the surgeons and are so arranged as to obviate the necessity of the surgeon with clean hands passing through the corridor. 6. This utility room is slightly different from the same room designed for patients' floors, but is equally necessary to an operating suite. 7. Minor operating rooms are, like those for major work, usually arranged in pairs with the same facilities between them. 8. On either side of the doctors' room are toilet and shower bath facilities between which were designed in this instance to meet a situation where men and women surgeons operate at the same time. 9. Elevators of special size and design. 10. A reserve supply of sterile dressings should always be on hand and this room is provided for that purpose. 11. For the convenience of the surgeons in the recording of their work, space is provided either for dictaphones or a stenographer. 12. A suitable place is necessary for the storage of surgical instruments and this is placed adjacent to the sterile supply room. 13. This is the doctors' rest and dressing room and should be equipped with lockers. 14. Supplementary X-ray apparatus already mentioned. 15. Anesthetizing rooms have a sub-corridor for the elimination of noise.

16. For the immediate examination of tissue it is considered desirable to place facilities in the operating suite for that purpose. Equipment for freezing, slicing and microscopic examination of tissues is required here. 17. Warming cabinets are for the storage of blankets to be used on patients immediately after operation. 18. This control desk is intended to co-ordinate all activities of the section and a well-trained nurse is required constantly on duty. All communications to the various parts of the hospital are transmitted through this center. Orders to start anesthetization of waiting patients, and routing of patients to the various operating rooms is controlled here. The use of this system saves the time of all concerned, assures the full usage of all facilities and obviates the necessity of supervisors running around from one place to another in order to keep things moving smoothly. Special telephones and signal systems are required to perfect this system.

19. Service halls adjacent to the elevators give privacy and keep the patient traffic away from all other. 20. The plaster room is for the storage and preparation of plaster used for bone fractures and thus is located adjacent to the orthopedic room.

The absence of a nurses' workroom in this sketch will be noted. This omission is due to the fact that in the institution for which this design was intended there is an obstetrical pavilion on the floor immediately below and facilities therein provided are adequate for both pavilions. A small lift in room No. 10 brings the sterile supplies from the floor below.

(Continued on page 72)



Cleaning Materials and Sanitary Supplies

— GUARANTEED — QUALITY — PRODUCTS —

Brushes
Brooms
Cleansers
Chamois
Deodorants
Detergents
Disinfectants
Floor Dressing
Insecticides
Industrial Hand Soap
Linseed Soft Soap
Liquid Scrub Soap

Liquid Toilet Soaps
Lacal-floor Finish
Lemon Polish
Metal Polishes
Mops—Wet and Dusting
Mop Sticks
Mopping Buckets
Mop Wringers
Olaceda Polish
Pails
Paper Towels
Soap Powders

Soap Chips
Sponges
Sprayers
Sterilizing Compound
Sweeping Compounds
Toilet Soap (bars)
Toilet Tissues
Whisks
Waste Receptacles
Wax—Paste and Liquid Self
Polishing

FINNELL ELECTRIC SCRUBBING-WAXING-POLISHING MACHINES

DUSTBANE PRODUCTS LIMITED

OTTAWA

MONTREAL

TORONTO

SAINT JOHN

WINNIPEG

VANCOUVER



No. 3441.

SAFETY HEAD ELECTRIC CENTRIFUGE

MACRO — MICRO — SEMI MICRO

*A Versatile, High Speed, Rheostat Controlled,
Angle Head Centrifuge for Exceptionally Fast Separations.*

A small, light-weight cast aluminum centrifuge of versatile design which may be used with maximum efficiency in either macro, micro or semi micro operations. The revolving head completely protects and encloses the tubes and acts as a fly-wheel, producing quiet action with minimum vibration. Material reduction of air resistance makes a top speed of 3,200 RPM possible with a full load. Five speed positions and an off position are provided by the rheostat.

The motor is suspended, well ventilated, fan cooled and can be operated from 110 volt A.C. or D.C. circuits. The base is heavy and very stable and mounted on rubber suction feet. Micro, semi micro and macro shields are all interchangeable in this head.

Senior centrifuge, Macro, including 6 aluminum shields and three each graduated and ungraduated 15 ML glass tubes \$48.00

Senior centrifuge, Micro, including 6 aluminum shields and three each graduated and ungraduated 15 ML glass tubes 49.00

Senior centrifuge, Semi-Micro, including 6 aluminum shields and three each graduated and ungraduated 15 ML glass tubes 49.00

FOR DUTY AND TAX PAID PRICES ADD 33 1/3 %.

When ordering state voltage, A.C. or D.C.

**CANADIAN LABORATORY SUPPLIES
LIMITED**

Winnipeg — TORONTO — MONTREAL — St. John, N.B.



THE PLANNING OF OPERATING PAVILIONS

(Continued from page 70)

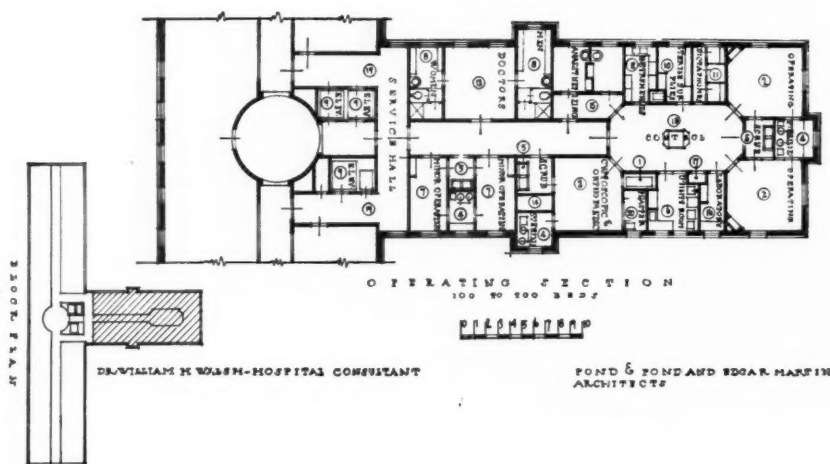


Figure I.

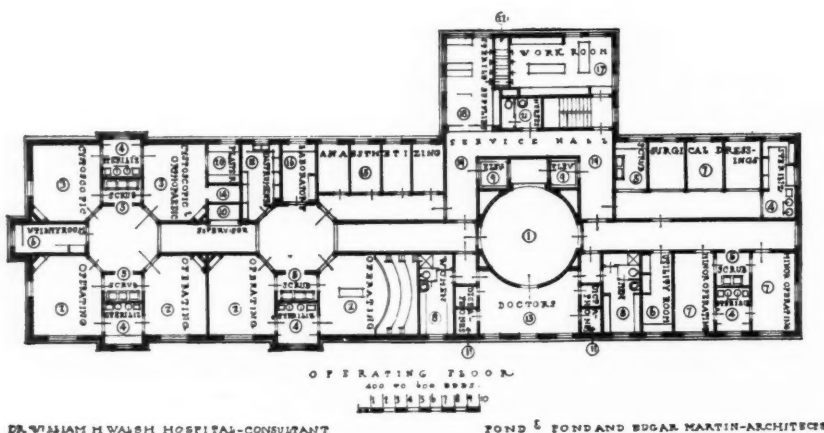


Figure II.

Figure II.

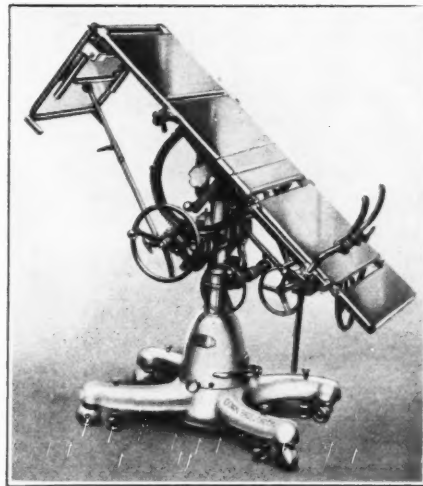
Closely approximating the ideal for a surgical section of a hospital of from 400 to 600 beds, it is located on the top floor of a vertical type building which would have at least twelve stories. Above this floor there may be arranged a gallery for medical students so that all operating rooms may be visible from above. In this sketch a gallery extends down into one major operating room so as to bring observers close to the field of operation.

1. The foyer or general lobby for the surgical floor. 2. Four general operating rooms, one of which has the gallery extending into it. Cystoscopic and orthopedic operating rooms with water and instrument sterilizers between 4. and 5. Also scrub-up sinks for doctors

and nurses. 6. Utility room for the major surgical section and another for the minor surgical section. 7. The surgical floor is designed so as to separate the minor and major sections as far as possible and the various minor operating rooms here can be used for surgical dressings, infected cases or other purposes. 8. Toilet, shower bath and locker rooms for male and female surgeons, adjoining the doctors' lounging and dressing room. 9. There are four elevators intended for the entire building but only two of them, as shown, extend up to this floor and, when the surgical floor is in operation these two elevators may be reserved for that exclusive use. These elevators opening into the service hall for patients and also into the main foyer for doctors, nurses, visitors and students. 10.

THE "WESTMINSTER HOSPITAL" MODEL TABLE

•
DESCRIPTIVE
CATALOGUES
AND
QUOTATIONS
UPON
REQUEST.
•



•
Adaptable For:
Proctoscopy
Reversed
Trendelenberg
Bronchoscopy
Gall Bladder and
Kidney Surgery
Head Surgery
Thoracic Surgery
•

DOWN BROS. LIMITED (LONDON ENG.)

143 COLLEGE STREET - TORONTO

Manufacturers of Stainless Steel Surgical Instruments and Hospital Equipment.

*Preferred by the patient . . .
and the treasurer!*



MADE from long, fleecy pure wool,
Ayers blankets and colourful over-
throws are soft, warm and light. And
their long, wash-resisting wear keeps
overhead down to a minimum.

*Pure wool . . . fast dyes . . .
quality manufacturing.*



Ayers
LIMITED

LACHUTE MILLS, P.Q.

Station for nursing supervisor in charge of traffic and communications, especially equipped with telephone connections and signals. 11. Cubicles for the convenience of surgeons in dictating surgical notes either to a clerk or into a dictaphone, to be transcribed in the clinical record office. These are a part of the surgeons' suite. 12. Surgical instrument room. 13. The surgeons' lounging and dressing room. 14. Space for supplementary X-ray apparatus adjoining orthopedic, urological and gynecological operating rooms. 15. Four separate compartments within a sub-corridor for anesthetizing. 16. Small laboratory for emergency and tissue examinations. 17. Nurses' workroom for the preparation of all surgical dressings which are sterilized in autoclaves and stored in 18 until required in the operating rooms or elsewhere in the hospital. 19. Service halls already mentioned and designed to prevent surgical cases from passing through the main foyer. 20. The plaster room for the storage and preparation of dressings for orthopedic cases, adjoining the operating room intended for this specialty. 21. Toilet and wash room for female nurses. 22. Autoclaves for the sterilization of dressings which are prepared and inserted from the nurses' workroom and removed on the other side into the room intended for their storage and distribution.

In hospitals of 50 beds or thereabouts, it is rarely possible to provide space for more than one room for operative surgery. Correlated facilities must needs be curtailed here. In every instance, however, it is absolutely essential to provide a surgeon's scrub-up sink, the necessary equipment for the sterilization of instruments, water and dressings. These are preferably to be located outside of the operating room. However small the hospital, a nurses' workroom is an indispensable necessity. Here dressings are prepared for sterilization, the various solutions are made, surgical trays set up, etc. In very small hospitals, this room will not only supply the needs of the operating room but will serve for other surgical functions.

No matter how small a hospital is, a dressing room for the surgeon is a necessity. It should be located close to the operating room. Wherever possible, shower and toilet facilities should be provided.

Where only one operating room must be used for all classes of surgical operations, the need for sanitation and cleaning the room is imperative, particularly if being used for pus cases. Such hospitals should have in this operating room, tile walls and floors with suitable drain in the floor to facilitate complete cleansing at frequent intervals.

There is a tendency in the small hospital, because of limited personnel, to locate the delivery room either immediately adjoining the operating room or closely adjacent thereto. As far as practical, this tendency should be discouraged because of the danger of cross infection. Thus wherever possible, the delivery room should be located on a different floor from the operating room and the operating room supervisor should not function in both places.

—*Modern Surgical Technic* by Max Thorek, M.D., K.L.H. (France); K.C. (Italy).

Knowledge and Timber shouldn't be used till they are seasoned.

—*Oliver Wendell Holmes.*

Handy Equipment Observed at the Hospital for Incurables, Toronto



The physician-in-chief, Dr. F. C. Harrison and the superintendent, Miss Pearl Morrison, find this apparatus very helpful for semi-incapacitated patients. The apparatus is essentially a pair of crutches. These are adjustable as to height and distance from each other. The patient is enabled to enter the apparatus by lifting the seat and by disengaging the back rest which simply loops over the post. The framework gives patients a sense of security and the large casters permit ready locomotion. If tired, the patient can sit down upon the upholstered seat which is adjustable for height. Hand grips at the back permit the attendant to wheel the patient about as in a wheel-chair.

Accounting and Statistical Forms Accepted in Five Provinces

The provinces of British Columbia, Saskatchewan, Manitoba, Ontario and Nova Scotia have accepted the new Accounting and Statistical forms worked out by the Canadian Hospital Council Committee on Accounting and Statistics and the Dominion Bureau of Statistics, Ottawa, and are taking the necessary steps to use the General Information and Movement of Population forms for 1939. Some of the other provinces are studying the forms with a view to introducing them.



*Liberal sample to hospital Superintendents,
nurses and doctors on
request.*

In the Maternity Ward

Ovaltine is recognized in hospitals and in private practice the world over as an exceptionally efficient aid in maternity cases. It not only builds up the strength of the mother and hastens convalescence, but by improving the quality and flow of the mother's milk it builds up the strength and vitality of her baby.

Ovaltine concentrates the nutrient values of fresh milk and eggs and a special barley malt extract lightly flavored with cocoa. It contains—

**Proteins, Carbohydrates, Calcium, Phosphorus,
Iron and Vitamins A, B, D and G.**

OVALTINE

TONIC FOOD BEVERAGE

Manufactured in Canada by
A. WANDER LIMITED, Peterborough, Ont.

Also factories in Switzerland, England, France and
the United States.

THIRTY YEARS experience in Commercial Kitchen Equipment



**PLANNING
and DESIGNING**

General Steel Wares is
staffed to give you complete
service from planning a new
kitchen layout to designing
special equipment.

When planning a new kitchen or
replacements, do as hundreds
of others have done — specify

McCLARY FOOD SERVICE EQUIPMENT

Write to your nearest GSW office listed below



GENERAL STEEL WARES

LIMITED

MONTREAL • TORONTO • LONDON • WINNIPEG • CALGARY • VANCOUVER



**FABRICATING
and INSTALLING**

EVERY STEP, from fabrica-
tion to installation, is under
the supervision of GSW
experts with years of
experience.

Ontario Hospital



Association News

"PROTECTION of hospitals in Toronto and throughout the world against gas attacks and air raids will be discussed by physicians of 44 nations at the Royal York Hotel, Toronto, in September. Mobilization of hospital personnel, replacements in civilian medical ranks, emergency plans and the placing of hospitals on a wartime footing are also on the agenda, Dr. Harvey Agnew, secretary of the hospital division of the Canadian Medical Association, stated. The occasion will be the convention of the International Hospital Association, conducted in five official languages: English, French, German, Italian and Spanish, and lasting a week. It will be followed immediately by the convention of the American Hospital Association for a similar period."—*Toronto Daily Star, Feb. 7th.*

Beds in the new wing of the Sanatorium, Fort William, received their first occupants on Monday, Jan. 30th. There will be opening services in connection with the new wing, it is reported. A long waiting list of patients already is on hand, and will be established in the new wing as quickly as possible.

A bronze plaque commemorating the work done by the late A. E. Ames, Toronto, in the fight against tuberculosis was unveiled Feb. 4th, on the grounds of the Toronto Hospital for Consumptives near Weston. It is placed on what will later be renamed the A. E. Ames Surgical Building.

Establishment of a central bureau to supervise the appointment of interns to all Canadian hospitals was proposed on February 5th, in Hart House by the Canadian Association of Medical Students and Interns. The bureau, located in Toronto, would be run in conjunction with the Canadian Medical Association's department of hospital service.

Installation of the new X-ray equipment in Lady Minto Hospital, Cochrane, is announced, and patients requiring examination in hospital are now afforded the most up-to-date equipment available.

Peel County made a grant of \$1,000 to the Peel Memorial Hospital, Brampton, recently.

It is reported that the Moose Lodge will present a portable X-ray machine to Port Hope Hospital, funds for this to be raised through public subscription.

The Board of Control, Toronto, has received a request from the Toronto East General Hospital, for aid in borrowing of an amount not exceeding \$300,000 for additions to the hospital. Board of Control left the matter to the hospitals commission to determine the necessity for additional accommodation, it is reported.

The Victoria Hospital Trust, London, Ont., will attempt to have a share of the \$350,000 Albert McGarvey fund added to the \$680,000 already available for the Victoria Hospital construction program. Members of the Hospital Trust hope to have \$850,000 in the building fund within a few months.

Seven additional appointments to the Riverdale Isolation Hospital, Toronto, were approved by the Board of Health on Feb. 8th, as Dr. Gordon P. Jackson reported

the need for extra staff to handle the large number of scarlet fever cases.

Authorization for the Board of Governors of the Branford General Hospital to proceed with arrangements for the financing of the \$100,000 addition to the institution was given by resolution of the City Council on January 16th.

—F. W. Routley, M.D.

WOMEN'S HOSPITAL AIDS ASSOCIATION Province of Ontario, Canada

Association formed 1910 Individual Aid formed 1865

Attention is drawn to the Ontario Hospital Association Convention, May 2, 3 and 4, when the Provincial Hospital Aids participate. There will be an advisory meeting at the Royal York Hotel previous to the sessions, also a meeting of the executive. (The President of each affiliated group is a member of the executive). A round table will follow when important matters will be discussed. Programs will be mailed at a later time.

The Women's College Hospital Auxiliary, Toronto, held a most successful "January Nite", gross receipts being \$4,564. A cheque for \$2,229 has been handed to the Board. The Cradle Club of the hospital realized a handsome sum from their hope chest draw. The funds will be devoted to hospital work also. The ladies are to be congratulated upon this outstanding achievement.

The St. Peter's Infirmary Hospital Aid of Hamilton held a bridge tea in Eaton's Green Room which proved a definite financial success as well as acquainting a multitude of ladies of the splendid work being done by this Aid group. During the afternoon, a handicraft table was featured, displaying work done by the patients under the supervision of an occupational therapist. This proved a busy and interesting spot when articles were readily sold and orders taken for others.

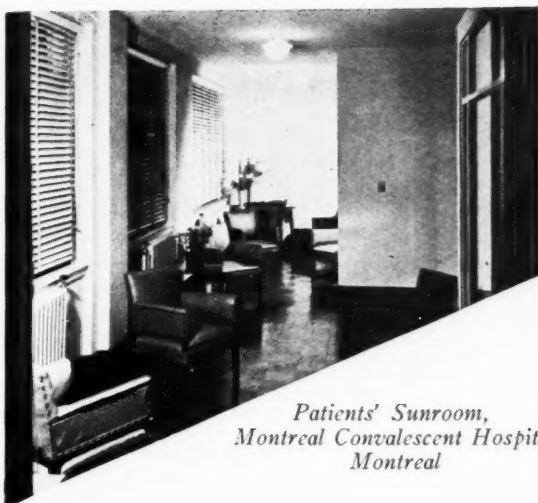
The Junior Hospital League, Chatham General Hospital, has assumed as its project for the coming year, the furnishing of the nursery in the new wing; an undertaking which involves an expenditure of approximately \$1,200. Much sewing is also done by this energetic group.

The Women's Hospital Auxiliary to the Memorial Hospital, Listowel, has undertaken the furnishing of the new nursery.

The Auxiliary to St. John's Convalescent Hospital, Newtonbrook, held their first annual meeting, recently, when outstandingly fine reports were presented. A display of the work done by the patients under the supervision of an occupational therapist was a feature of the meeting. Sister Beatrice, S.S.J.D., gave an address on the human side of the convalescent hospital and the value of such an institution.

The Hospital Aid to the Stratford General Hospital held a very successful Valentine Bridge which added materially to the funds to carry on the Aid work.

The Clinton Hospital Aid were hostesses at a community dance which proved a very pleasant affair. The funds of which will be used to further hospital aid work.



*Patients' Sunroom,
Montreal Convalescent Hospital
Montreal*

WHERE LIGHT CONTROL IS MOST IMPORTANT

HEES VENETIAN BLINDS IN THE HOSPITAL

THESE blinds allow perfect control of daylight, no matter what kind of light is required, whether the full sunshine is desired or any degree to complete shade. Just a tilt of the cord "adjusts" daylight . . . and by directing air currents, without interruption of ventilation, gives comfort during even severe heat waves.

Some of the well known Canadian hospitals using
HEES VENETIAN BLINDS:

ONTARIO

Toronto Western Hospital, Toronto
Toronto General Hospital, Toronto
Women's College Hospital, Toronto
St. Joseph's Hospital, Toronto
Queen Alexandra Sanatorium, London
Public General Hospital, Chatham
Essex County Hospital
St. Lawrence Sanatorium, Cornwall
Stevenson Memorial Hospital, Alliston
General Hospital, Port Arthur
International Nickel Co. of Canada Hospital, Copper Cliff.

QUEBEC

Neurological Institute, Montreal

Easily kept immaculately clean—decoratively in line with the cheery style of decoration in hospitals. No intricate mechanism. Individually tailored to each window.

*Write for colour chart and illustrated folder—our
experience in equipping hospital windows
is at your service.*

HEES VENETIAN BLINDS are sold by all leading house furnishings stores and interior decorators.

Manufactured and Guaranteed by

GEO. H. HEES SON & COMPANY
Limited

TORONTO

MONTREAL

MARCH, 1939

NOTHING LESS THAN FAULTLESS CASTERS

Could Match the
**METRON-O-SCOPE'S
PRECISION DESIGN**



No. BY459
Caster with
Double Ball
Bearings
and Ruberex
Wheel.

When scientists produced the Metron-O-Scope, the American Optical Company rendered its greatest contribution to the field of visual science. It makes available the first instrumentation for controlled reading training both in initial instruction and for corrective work at all age levels. The Metron-O-Scope, made by Educational Laboratories for the Optical Company, is the culmination of research carried on by many individuals over a long period of time. Therefore, Faultless takes justifiable pride in being chosen to furnish casters for the Metron-O-Scope, because of their equally fine precision design.

Your hospital equipment, too, should be Faultless-equipped throughout. A complete line of the fine casters especially constructed for quiet, dependable hospital service is fully illustrated and described in the LE Catalog ready for you. Write for your copy today.

**FAULTLESS CASTER
CORPORATION**
STRATFORD, ONTARIO

Here and There in the Hospital Field

By THE EDITOR

A Brake on the Wheels of Progress

IT is estimated that easily the majority of our hospitals still use unpasteurized milk. This anomalous situation is due to the fact that for most of these hospitals pasteurized milk is not available and the danger is not sufficiently appreciated to induce them to do their own pasteurization. In the report on the British Health Services by PEP, the British non-political health organization, it is pointed out that 40 per cent of the milch cows of Great Britain are infected with bovine tuberculosis. Yet it was necessary for the British Government to withdraw its compulsory pasteurization measure last year, apparently for political reasons.

* * *

Oh Ye of Little Faith!

There is a real hazard in winning a sweepstake. Fortunately the danger is exceedingly rare. In a recent article on "Suicide" in the Edinburgh Medical Journal, Professor D. K. Henderson describes a group in a Scottish train compartment whose minds toyed with the happy thought of a winning ticket. One muffled passenger only was not enthused. "And why aren't you interested?" "Because I won last year" (in husky tones).

"You must have won a fine sum?" "No, I'd sold my chances for £5."

"If I had done that, I'd have cut my throat!" "That's what I did."

* * *

Community Co-operation

The hospital care plan at the Kootenay Lake General Hospital at Nelson is adopting a novel way of facilitating collections. The post-master in each district is being asked if he would be kind enough to act as membership and collection agent for the hospital. For these services the society is offering a free contract (covering himself, his wife and family) to all agents who can secure ten or more signed contracts and who will look after the collection of the monthly payment and remit such to the society.

* * *

To the Ladies

The *Sinai*s, the Auxiliary of the Mount Sinai Hospital of Toronto, "featured" the dance programme in a new and most successful manner at their fourth annual Valentine Dance held in the Royal York Hotel on February the 7th. The dance programme, enclosed between the traditional heart-shaped red cardboard cover, opened to show more than 800 advertisements and messages of goodwill, which ranged in length from the full page to one line. By this clever use of the programme the *Sinai*s realized over \$3,000 for the hospital.

* * *

I. Q.'s for Nurses

The president of a well known college to the south stated, before a recent hospital convention, that he ques-

tioned seriously whether any young woman should be admitted to a school for nurses who had an intelligence quotient under 110, who ranked below the middle of her high school graduating class, who was deficient in personality traits, or who did not speak proper English. He advocated the setting up of a character trait rating procedure not only before admission but through the training period.

* * *

Marked Reduction Shown in Infant Mortality of Ottawa

The improvement in the infant mortality in the city of Ottawa is very gratifying to those who have laboured so hard to affect this change. For the last fiscal year, the infant death rate per 1,000 live births was 66.4. This was a marked reduction from the figure of 78.7 for the preceding twelve months. If one excludes from the calculations Ottawa born babies whose mothers are non-resident, the figure is still better, 58.6. This figure compares exceedingly well with the figure of 117 in 1926 and 104, ten years ago. Education has been a great factor in bringing about this result. The hospitals report a large increase in the number of expectant mothers attending pre-natal clinics.

* * *

Oval Therapy

We read recently of a patient in a New Zealand hospital who, after keeping an egg in bed with him for 25 days, hatched a leghorn chicken. It has since been proposed that this practice should be encouraged. The idea is that the hospitals will support themselves by the sale of day-old chicks and the patients forget their troubles in the joys of incubation.

"And how are we this morning?" says the doctor.

"Swell. Lookit", says the patient, lifting the blanket from a clutch of buff orpingtons.

"You're running a temperature of 102", says the doctor.

"Fine", says the patient, "it will hasten the blessed event".

* * *

Those Were the Days

Anyone whose spouse is addicted to kicking or tossing when asleep might be interested in a famous old bed in England which was described in a recent literary work. This is the well known "Bed of Ware" or "Trinity Bed" at Rye House, Roxbury. This old bed will actually hold 102 persons! Apparently it is terraced, with the lord and master on the top level, the family, the in-laws, and the retainers on the lower levels. The builder of this creation, Jonas Fosbrooke, worked for thirty long years and as a consequence was pensioned for the rest of his life by Edward the fourth. While this arrangement may have been an excellent one for defence, in case of an attack, or for cold feet in winter, one cannot help but think that it must have had the disadvantage so frequently noted with respect to living in a fishbowl.

DANGER ZONE VS. SAFETY ZONE REFRIGERATION

● Tests have shown that the bacteria count of milk multiplied 456 times in 24 hours when kept at 55 degrees. Kept below 50 degrees the bacteria count multiplied only 3 times.

Bacteria growth in fresh beef reached the danger point in less than 48 hours when kept at 55 degrees. Kept below 50 degrees it showed an actual reduction in bacteria count after 48 hours.

Nowhere, more than in the hospital, are these facts of significant importance. If you use ice refrigeration, place a thermometer in the food compartment and see for yourself how seldom the temperature is below 55 degrees. You will see why Frigidaire, which assures CONSTANT temperatures below 50 degrees and above 32 degrees (the Safety Zone), is the SAFE, SURE refrigeration equipment for hospital requirements.

Safe Refrigeration—Lowered Costs

Hospital refrigeration costs show an important reduction when Frigidaire is installed. Current cost compared to ice expense is so low that figures compiled from the operation of thousands of installations show that operating costs and food savings pay for Frigidaire equipment in a remarkably short time. And in addition, first cost is low because Frigidaire uses a low pressure refrigerant which permits a smaller compressor—giving more pounds of refrigeration per dollar.

Get the Facts for Your Board

Positive food protection—important savings in refrigeration expense—elimination of sweating, trimming and spoilage—investigate these modern FRIGIDAIRE advantages today. See your local Frigidaire Commercial Dealer or send for the booklet "Verified Value" direct to Frigidaire Division, General Motors Sales Corporation, Leaside, Ontario.

FRIGIDAIRE

ELECTRIC REFRIGERATION

MADE ONLY BY GENERAL MOTORS

THERMOS

SERVICE JUGS AND SETS FOR ALL INSTITUTIONS



A need at every bedside in Hotel, Home or Hospital

Write for complete institution folder now.



No. 176 Model

Special Set with hinged lid and thumb lift, nickelled lip and handle with polished base edge. Body enamelled, in four colors—ivory, rose, blue or apple green. Jug fitted with Stronglas filler. Very strong and serviceable. Tray, as in cut, enamelled to match. Set complete (No. 176), \$5.65 net, tax included. Jug only (No. 76), \$4.50, tax included. State color desired. Prices quoted are for quantities of 12 or more.

No. 663S. Special Jug for restaurant and table service in dining rooms and nurses' residences—for tea, coffee or ice water, any beverage. Holds 33 ounces, has heavy metal case silver plated, good pouring lip and lift lid, Stronglas filler. Thousands in use in restaurants and hotels. As cut, \$11.80 net, tax included, in lots of 12 or more.



No. 663S Model



No. 1979 Ice Tub

Thermos Ice Tubs will keep ice at bedside or service room for many hours. Holds two quarts of cubes or shaved ice ready for service. The case is bright chrome finish with moulded ware

black base and handles. Complete \$10.00 net, sales tax included, in lots of 6 or more.

THERMOS BOTTLE CO. Limited Toronto 3, Ont.



Switchboard and Telautograph Room: at the Toronto General Hospital.

Doctors' calls to the Private Pavilion are transmitted through the telautograph machine to the desk clerk on each floor. One operator in the Switchboard Room is especially assigned to locate the many medical men using the hospital.

CALL SYSTEMS FOR DOCTORS

UPON the request of one of our larger hospitals, enquiries were made of twenty-five institutions of 300 beds or over as to the method in use for registering and locating doctors at the hospital. Enquiry was made concerning: the method of booking doctors "in" and "out"; the method of furnishing doctors on arrival with messages from outside or from other services; paging in the hospital and, the recording of time of receipt of message and of location of doctor.

The following summary of the replies from twenty-two of the hospitals has been prepared by the Department of Hospital Service of the Canadian Medical Association.

Method of Registration

"In" and "out" name boards, electric and manual, appear to be the most popular method, and the most satisfactory, for the registration of doctors on arrival at the hospital. Eight hospitals have electric name boards installed in the doctors' room, with a corresponding board at the switchboard which, when the doctor pushes the button on arrival, indicates to the switchboard that he is in the hospital. Six other hospitals use an "in" and "out" board placed either at the information desk or in the hall near the switchboard. With the exception of one hospital which employs a clerk during the morning hours to operate the board, the doctors themselves are responsible for its operation. Two other hospitals resort to bulletin boards, but did not state whether they were name boards or not.

Ordinary signature registers are made use of in the case of four hospitals, these being placed either at the information desk or at the switchboard; the responsibility in one

or two instances being placed entirely upon the doctor himself. One large hospital has a man in charge of the doctors' cloakroom in the public ward division, and he is responsible for knowing who is in or out of that part of the hospital. In the private patients' pavilion of this same hospital, however, no register is kept. Another hospital has its switchboard placed adjoining the doctors' room, with a mirror over the board, thus permitting the operator to make note of doctors arriving or leaving. Only one hospital stated that it had no method of registration, the switchboard being placed near the entrance.

Furnishing Messages on Doctors' Arrival

Methods of furnishing doctors upon arrival with messages vary considerably. Hospitals with electric "in" and "out" boards connecting with the switchboards in four instances have a "return call" system, usually by a special light, whereby the switchboard operator indicates on the board in the doctors' room that they are trying to locate a particular doctor. Seven hospitals leave the messages on the name or bulletin board either in the corridor or in the staff room; two rely on the telephone; seven give messages personally, four of these through the switchboard; two hospitals leave messages in the cloakroom. Loud speaker systems are used in two hospitals.

The telephone would seem to be the most popular method of paging doctors while in the hospital, fifteen hospitals resorting to this system. In the case of three hospitals, however, only visiting doctors are located by 'phone, staff members being located by the silent signal system, which is resorted to in five hospitals. One hospital uses a telautograph system throughout, another using it in

FUNDAMENTAL

For Reliable Radiographs . . .
For Standardized Technique

● EASTMAN *Ultra-Speed* Safety X-ray Film is made to meet every technical requirement in present-day radiography. It provides all essential characteristics, properly balanced so that radiographs of desired diagnostic quality can be produced whether the situation demands brilliant contrast in the image or minute detail with a moderate degree of contrast.

From film to film, the inherent properties are the same, making the recording medium a fixed factor in standardized technique. In addition, freedom from manufacturing defects avoids the inconvenience and waste of time and materials caused when remakes are necessary. Canadian Kodak Co., Limited, Toronto, Ontario.

EASTMAN ULTRA-SPEED SAFETY X-RAY FILM

MARCH, 1939



WILSONIZED LATEX RESISTS *Heat* LONGER

● The autoclave, Dr. Jekyll and Mr. Hyde of every hospital, protects by killing germs, but robs budgets by weakening rubber gloves. Wilsonized Latex is prepared to resist this extreme heat for a much longer period and with less damaging results than with the best pure gum rubber. Wilco, the Brown Latex glove, will safely withstand more than 30 sterilizations while Wiltex, the finest of all White Latex Gloves, is stronger after 25 sterilizations than old style gum gloves were when new.

Reduce GLOVE COSTS

● With this extreme resistance to heat, the arch enemy of ordinary rubber, Wilsonized Latex effects greater savings through the longer life of each Wilson surgeon's glove in your hospital. While it is true that the superior Wilsonized Latex naturally has a higher original cost, it is also true that great savings can be made during the year, if you insist on Wilco Brown or Wiltex White Latex Surgeon's Gloves.



Sole Agents: J. F. HARTZ CO., LTD.
TORONTO - MONTREAL

Announcement!

The Standard Tube Co. Limited

has disposed of
the Stan Steel line of hospital
equipment to

**Metal Fabricators
Limited**
WOODSTOCK, ONTARIO

We take this opportunity of thanking the Canadian hospitals for their enthusiastic approval of Stan Steel equipment in the past and earnestly solicit your continued support by specifying "Stan Steel" as manufactured by Metal Fabricators Ltd.

**The Standard Tube Co.
LIMITED**
WOODSTOCK, ONTARIO

the private patients' pavilion only. Loud speakers are used in three hospitals. One hospital using this system, which is directly connected with the switchboard, has thirty-five or forty loud speakers. It was found that this method cut down the use of telephone communication enormously and, while somewhat disturbing to people not accustomed to working in the hospital, it is hardly noticeable to those working in the hospital or to the patients (a children's hospital). Another hospital has the loud speakers in the chart rooms on the wards and at strategic points where patients would not be unduly disturbed. One hospital uses a vocal call. One hospital in the case of an urgent message has a member of the hospital personnel staff page the doctors personally.

Time Records

Fifty per cent of the hospitals replying record the time of receiving a message for a doctor, although this is not always a permanent record. The other eleven make no record of the time messages come in. In only two hospitals is the time of locating the doctor recorded.

Several interesting factors are worthy of note. One large hospital employs what is known as a "locating operator" on the switchboard, whose sole duty is to locate doctors; this she is able to do very satisfactorily through her knowledge of the habits of the medical staff and the likely places in the hospital where they might be found. If, however, she is not successful, the party sending in the message or the doctor's office is notified.

The silent signal systems in operation are either color combination or number systems. Numbers range from one to nine and many combinations can be made up. In one hospital there are sixteen different stations throughout the hospital where the number appears when flashed by the switchboard operator. On each floor there is a copy of the code giving each doctor's number.

One large hospital has expressed the opinion that the telephone system of paging doctors is very annoying, a waste of time and extravagant in that so many telephones must be answered for one sought-after individual.

In one of our largest hospitals consideration is being given to the possibility of a broadcasting system from a central station in the hospital. Each individual listed for paging would be equipped with a small watch-like receiver which can be carried in a pocket. It is stated that these would be effective anywhere in the hospital area and that many hundreds could be sensitized to the one central station.

Ontario Society of Radiological Technicians to Meet in June

The Fourth Annual Meeting and Convention of the Ontario Society of Radiological Technicians will be held at the Royal Connaught Hotel, Hamilton, Ontario, June 8th, 9th, 1939. Speakers of note will address the members at luncheon on June 8th, and dinner on June 9th, and a varied programme of papers, demonstrations and exhibits is being arranged by the Committee.

All those engaged or interested in X-ray work will find it profitable to attend this meeting.

Rules for Volunteer Aids

The volunteer pledge and rules to be read and observed by volunteer aids were noted recently in a hospital that has a very active and efficient volunteer aids organization. The pledge and rules were printed on small sheets which were posted in the canteen and which were given to all volunteer members of the organization.

Pledge—

We recognize the need of regular and prompt attendance, of courtesy and alertness, of attention to dress, manner, deportment and a strict observance of such profession ethics as may from time to time be expounded to us.

Rules

1. Report for duty on time and stay full time. Always sign IN and OUT at the main desk.

2. Always notify the superior in your department when you go on and off duty.

3. When it is necessary for you to be absent notify your chairman in ample time for her to provide a substitute. Never allow a post to go unfilled. Take pride in making your unit function perfectly.

4. Always wear an aide's smock when on duty and be sure it is clean and pressed. Wear no jewelry and not too much make-up.

5. Do not wear your smock when visiting friends who are patients in the hospital or when attending to personal business in the hospital.

6. Do not ask the doctors for professional advice for yourself or your family while on duty in the hospital.

7. When in doubt as to any procedure do not act on your own initiative. Consult your superior and let her take the responsibility.

8. Criticism of the aide service should be reported to your chairman.

9. Always co-operate with the hospital staff and be alert for further fields of helpfulness. A loyal and constructive attitude is one of a Volunteer's chief services to her hospital.

10. Act at all times in a dignified and considerate manner. Remember while working in the hospital you are a part of a large organization and be above criticism.

11. Do not smoke in the hospital or loiter in the hostess room. When off duty leave promptly.

12. Every head of service should work at least once a month in her own department. She is personally responsible for the efficient working of her group.

13. NEVER discuss outside any detail of the hospital or happenings therein. Never pry into patient's or hospital affairs.

14. Realize that you are needed and counted on. Try to give the hospital the highest type of service.

YOUNG PATHOLOGIST DESIRES POSITION

Young physician with one year's experience in pathology desires post as pathologist to small hospital or assistant to pathologist in larger institution. Willing to do further work before commencing duties. Reply, Box 148-S, The Canadian Hospital, 177 Jarvis St., Toronto.

Metal Fabricators LIMITED

WOODSTOCK, ONTARIO

o are proud to announce
that they have acquired
the Stan-Steel line of
fine Hospital Equipment.



STAN-STEEL
Hospital EQUIPMENT

will be manufactured and marketed by Metal Fabricators, Limited to the same high standards of materials and workmanship as originated and maintained by the Standard Tube Co., Limited.

To the well-known Stan-Steel line, has been added complete facilities for the manufacture of special cabinets and stainless steel sinks for kitchens, laboratories, etc.

Your enquiries will receive careful attention.



**METAL FABRICATORS
LIMITED**

D. A. WHITE, General Manager

WOODSTOCK - ONTARIO

For Sanitation and Low Maintenance Install



Cross-Section View

The laminated core assures a seat of exceptional strength that will withstand the most severe abuse.

The dense, highly polished, hard rubber covering is attractive in appearance and is impervious to moisture.

Viceroy 5-ply Rubwood Seats are guaranteed for 25 years.

Write for illustrated folder

VICEROY
MANUFACTURING COMPANY, LIMITED
WEST TORONTO - CANADA

The Round Table Forum

(Continued from page 58)

the event of a change in our policy. Because of lack of suitable accommodation, graduate nurses are not permitted to smoke in residence in this hospital.

Agnes E. Pederson, Superintendent of Nurses, Medicine Hat General Hospital, Medicine Hat, Alberta.

We do not permit pupil nurses to smoke in residence for the following reasons:

Careless smoking is damaging to linens and furnishings and also creates a fire hazard.

It increases difficulty in maintaining neat, clean rooms.

Where two or more students share a room we believe smoking to be particularly unhygienic and may be offensive to non-smokers.

Finally, and probably most important, if nurses are permitted to smoke in residence, there is a tendency for them to smoke while in uniform and this will inevitably result in carrying the stale odor of smoke to their patients' bedsides. Patients do comment on this in instances of some special nurses.

We do not forbid but we do discourage students smoking in public places, such as restaurants.

Myrtle MacMillan, Superintendent, MacKellar General Hospital, Fort William, Ontario.

Instead of prohibiting students from smoking, I would teach the nurses of to-morrow, who are to be the teachers of right living, that smoking is no substitute for healthy recreation.

I would teach that smoking is often a disguise for lack of moral courage to say "no". It makes them mentally less alert, weakens them physically, is a financial burden and there is always the possibility that they may become addicts.

Smoking may create a great fire hazard, and furnishings suffer. Again, the odor may be very undesirable to the patient and smoking be very discourteous.

Educational discipline, the fundamental characteristic of the art of nursing, instills in the nurse that only through painful effort and resolute courage, we move on to better things.

I leave it to the Twentieth Century Students, enjoying greater freedom, privileges and responsibilities than their predecessors, to have the grace, grit and gumption to be their own prohibitionists.

"Self knowledge, self reverence, self control — these three alone lead on to sovereign power."

Jean A. Harrison, Superintendent, Prince Rupert General Hospital Association, Prince Rupert, B.C.

We teach our students that smoking is a matter of personal hygiene and individual taste, rather than one of ethics; to be decided for or against on grounds of desirability, habit formation and cost.

Smoking on duty is not permitted. Neither are nurses allowed to approach patients with breath and clothes re-dolent of smoke and with fingers stained with tobacco.

In their private lives they are free to do as they please, within ordinary accepted standards, except for smoking in bed. This is prohibited because of the fire risk.

E. Mallory, Superintendent of Nurses, The Children's Hospital of Winnipeg, Winnipeg, Manitoba.

We consider that smoking in our Nurses' Residence would constitute a very definite fire hazard, and for this reason ask our nurses, both student and graduate, to refrain from doing so. On the whole they co-operate very well. Due to an absolute lack of space for such, we have not as yet been faced with the problem of having to decide whether or not to establish a smoking room in the residence.

Rapid Growth of Hospital Care Insurance Plans

Two new hospital care insurance plans were launched in Canada at the beginning of the year. The Manitoba Hospital Service Association, with headquarters in Winnipeg, is a community-wide, non-profit plan, covering dependents as well as employed subscribers and providing semi-private hospitalization and various other benefits. At Nelson, British Columbia, the Kootenay Lake General Hospital Society began a drive for contracts for a similar plan which offers public ward accommodation. At Galt, Ontario, a plan along similar lines has been completed but enrolment of members has not begun.

A report just issued by the Committee on Hospital Service of the American Hospital Association gives an indication of the rapid growth of these plans in the United States. The following are some of the large hospital care insurance plans:

Associated Hospital Service of New York	1,080,661
Minnesota Hospital Service Association, St. Paul	244,721
Cleveland Hospital Service Association	153,931
Associated Hospital Service of Massachusetts, Boston	116,284
Hospital Service Plan of New Jersey	111,893
Rochester Hospital Service Corporation	109,061
Hospital Savings Association of North Carolina	85,436
Plan for Hospital Care, Chicago	85,000
Group Hospital Service, Syracuse	66,772
Hospital Service Association of Pittsburgh	65,251
South Carolina Hospital Care, New Haven	61,021
Hospital Care Association, Durham, North Carolina	54,977
Group Hospital Service, St. Louis, Mo.	51,444
Group Hospitalization, Washington, D.C.....	50,000

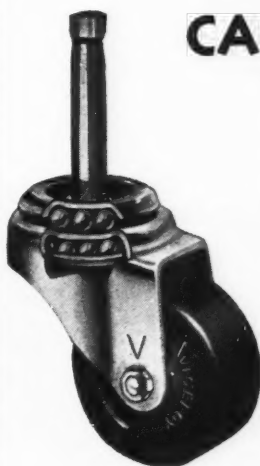
Standard Tube Co. Disposes of Hospital Line

Metal Fabricators, Limited, Woodstock, Ont., will in future manufacture the range of hospital equipment and furniture made until recently by the Standard Tube Co., Limited.

The plant and office will still be located in Woodstock, with the Toronto showroom at 24 Dundas Street West. Mr. D. A. White will be general manager of the new organization.

The "Stan-Steel" line, we are advised, will maintain the same high quality which has characterized the line in the past. Extensive additions are contemplated in the near future.

Complete Floor Protection is assured with **VICEROY** CASTERS



Hard Rubber Wheels, with either soft or hard tread, with wide flat tread surface give easy, quiet operation and maximum protection.



There is a Viceroy Caster for Every Purpose.



Viceroy Furniture Glides are low in cost, easy to install and eliminate noise.



Glides are especially recommended for Private Rooms, Reception Rooms, Dining Rooms and Cafeterias.

Write for illustrated folder

VICEROY

MANUFACTURING COMPANY, LIMITED

WEST TORONTO - CANADA

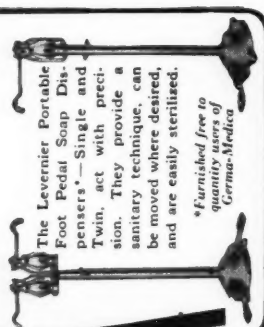
No Excuses Necessary

WHEN YOUR HOSPITAL USES GERMA-MEDICA

Like the production department of a factory, your operating room provides a main source of income. To furnish inferior materials—whether to workman or doctor—is to endanger not only income, but also reputation. Your doctors deserve Germa-Medica. Used in more than 60% of America's hospitals, its detergent lather quickly dissolves dead tissue and removes bacteria, yet it never harms the skin. Order Germa-Medica. Your staff will welcome the change.

The HUNTINGTON LABORATORIES of Canada Limited
72-76 DUCHESS STREET, TORONTO, ONT.

Branches: Halifax, Montreal, Winnipeg, Regina, Calgary, Edmonton, Vancouver



*Furnished free to quantity users of Germa-Medica



"Flying Doctors" in Australia

(Continued from page 36)

patient on until our arrival, when, with the help of the two nurses, an operation was performed. As no aeroplane or doctor had ever been at this spot before, many of the people of the district came in to get small matters attended to. These involved dental advice, attention to children's throats, and all the other matters one meets in general practice. On the 600 miles trip back, calls were made at two other small towns where there was no doctor, and again advice and treatment were given to many of the people of the district.

A rule has been adopted that no call shall be attended within 50 miles of a practising doctor, unless at his specific request. There are many small towns in the area covered by the Cloncurry service without a doctor, and regular visits are made to some of them, perhaps monthly or quarterly.

All the station homesteads have a good landing ground within a mile or so of the house, and this applies also to police stations, townships, telegraph stations and boundary riders' huts. In some districts the people regard a good landing ground as being of as great importance as a roof over their heads. The service has come to be a part of the life of the people, just as the general practitioner is in more populous parts. Its value is being appreciated more and more by the people it serves, and this can be seen by the mileage figures. In 1928, the miles flown were just under 18,000; this has steadily risen until, in 1936, it was 36,800; and with the satellite service at Croydon, it was, in 1937, 47,660 miles. The service is carried on at Croydon, in conjunction with the main base at Cloncurry, by a medical woman who is making a wonderful success of the work. The length of the trips ranges from about 100 miles to over 1,200 miles.

It will be seen that there is not necessarily a trip to make every day. The work is most irregular, and the doctor may be in the air daily for perhaps ten days and then not again for three or four days. These latter days are not by any means idle, but are filled by the consultations "over the air" which may have accumulated whilst absent from the base.

It is a rare thing to have to postpone a flight on account of weather conditions, and never on account of aeroplane trouble. The company which has the contract to fly the doctor has a relief plane at Cloncurry, and maintains a staff of mechanics and pilots always ready. The policy of not expecting the doctor to be a pilot also has been found best, and the contract arrangement with an aviation company has proved eminently successful.

Rarely, if ever, do wet grounds prevent a flight, as landing grounds are placed on the highest site available. Occasionally a dust storm will delay a trip for a few hours, but even this experience fell to my lot on one occasion only during the time I was at Cloncurry. The dust storms are considered to be bad in this part of Australia. In matters touching flying conditions the pilot has the last word; a decision as to the urgency of the case is the doctor's responsibility. He and the pilot discuss any proposed trip on this basis.

Another part of the work associated with the service is

consulting with and giving assistance to medical men practising in the area. One day may be spent in a 700 mile trip, having for its object a consultation at one town and an operation or anaesthetic at another; all branches of medicine, including midwifery, are practised, and not always under the best conditions, but the policy of transporting patients to the nearest hospital, and occasionally to the capital cities (sometimes even 1,200 miles away), brings to the people of the "outback" the best possible medical service. The medical men in the areas served are not only unantagonistic, but they welcome the help they are able to receive.

The mission stations of the northern coast of Australia frequently obtain advice over the air, and many trips are made to them in attending the white residents and the natives under their care. These latter are particularly susceptible to influenza and pneumonia, and they also suffer considerably from Pulmonary Tuberculosis, Yaws and Malaria.

A very important result of the "Flying Doctor" services is the feeling of medical and surgical security now enjoyed by the isolated people of the Continent; this has resulted in sheep and cattle men and miners taking their women folk and children confidently to places where they would not have felt safe before. The wireless has removed much of the loneliness from their lives, and they are able to converse at will with their neighbours (perhaps 200 miles away) and to speak daily with the base station, and through it by telegraph to the rest of the world.

The comparatively small number of patients attended may appear to be out of proportion to the amount spent, but when the immense distances, the lives saved, and the feeling of security engendered are taken into account, the "Flying Doctor" Service is amply justified.

Suit Against London Hospital Dismissed

A suit for \$10,000 brought against St. Joseph's Hospital, London, by William Broomfield of Strathroy, Ontario, for damages for injuries sustained in a blood transfusion, was dismissed recently by Mr. Justice Ainslie Green without the defendants submitting their case.

Broomfield suffered a fractured skull when he fell from an operating table after giving a transfusion to his 18-months-old son on March 5th, 1938. He alleged that he should have been warned against dizziness, assisted from the table or kept there till the dizziness passed. Defendant's counsel argued that only a couple of tablespoons of blood had been removed during the transfusion and that it was common sense, in a cause of giddiness, to rest instead of trying to climb down from a height. A senior intern of Victoria Hospital, who was a witness, stated that after a small transfusion of 35 or 40 cc. the donor was not always warned of giddiness because there were no physical effects, although a feeling of confusion, a psychic effect, might result.

In dismissing the case the court held that there is no general principle making a hospital liable for damages resulting from the non-performance of an act by its staff.

MARCH, 1939

It is not Luck that has made



Gibbons Quickset JELLY POWDER

THE LARGEST SELLING DESSERT IN
CANADIAN HOSPITALS

It is the result of knowledge of your needs,
and the specialized intelligent effort to make
a product as no one else ever made it before.

You have those five EXTRA SERVINGS from
every pound; and the smooth, rich fruit flavor
is there for you when you need it—because it
is packed in lacquered flavor-holding tins.
Prepaid to your storeroom.

"A Cent a Serving (3½ oz.)"

Mail your orders to

GIBBONS QUICKSET DESSERTS

SHIRRIFF'S LIMITED

24 Matilda Street
TORONTO



Architect's Perspective, Mercy Hospital for Incurables, Toronto.

Fire Regulations and Drill for Rural Hospitals

(Continued from page 44)

Sanatorium, which is situated about ten miles from the centre of the City of Calgary. The sanatorium has eight buildings and a power house spread over an area of about 1400 by 400 feet, and accommodates about 210 patients. There is also one doctor's residence outside this area. The power house contains generating, pumping and refrigerating equipment so that the institution is practically self-contained. Spread around these buildings are a number of alarm stations, which, when operated, start a mocking bird or intermittent steam siren which can be heard over the whole countryside. Whatever the type of alarm, it should be such that it obtains instant response from all concerned.

Fire fighting apparatus should include extinguishers which are instantly available all over the buildings, so that staff actually on the spot may be able to deal with an outbreak before it has a chance to assume large proportions. On two or three occasions in our own institution, fire which might easily have involved the whole building, but for the prompt action of a member of the staff, has been put out with hand extinguishers. This, of course, would not have been possible had the proper equipment not been provided. We use the ordinary 2½ gallon extinguisher containing a solution of carbonate of soda, which, when inverted, is actuated by sulphuric acid. These are placed throughout all buildings. In addition, small hand extinguishers, containing carbon tetra-chloride, are placed near kitchens and transformers. These are most

efficacious against burning fat or oil. Also, pails containing sand are located throughout the buildings.

Some of the buildings are equipped with fire doors, kept in place by a fusible link. These would undoubtedly assist in localizing an outbreak. Inside each building is a 1½ inch linen hose attached to a standpipe which is instantly available in case of need. In addition, we have a hose reel cart on which is carried sufficient 2½ inch hose to reach every building in the group. The cart also carries a ladder, axe, rope, lanterns and smoke respirators. Hydrants are placed at suitable points throughout.

Fire Regulations and Drills.

In order to co-ordinate the services of the staff, in the event of an outbreak of fire, institutions should have fire regulations which describe in detail the actual duties of every member of the staff and patients when the alarm sounds. These regulations, however, will be of little avail unless the personnel concerned be exercised from time to time in their duties.

The regulations at the Central Alberta Sanatorium require that "Personnel concerned with the medical treatment of patients shall immediately, on the alarm sounding, report to their respective wards. They will then ascertain location of fire, and if the building in which they work is not in danger, they will assist in the evacuation and care of patients from the threatened building". The fire regulations designate stations to which everyone reports; for instance, all male staff not engaged in the evacuation of patients report to the captain of the fire brigade to assist in fighting fire until the arrival of the city apparatus. A fire brigade consisting of hydrant men, pipe men and lad-

der men are definitely named in the fire orders. These men, of course, report at once to the hose reel house to take the cart to the threatened building.

The regulations provide also for the searching of all patients' lavatories, treatment rooms and staff quarters, to make sure that all personnel are accounted for. During the routine drill the whole procedure is followed except the actual evacuation of patients. If drill is held once a month, the patients become familiar with the procedure and do not become unduly excited when the alarm sounds. They understand that, unless they are told to leave the building, there is no danger.

Terrible catastrophes can result from fire. No preparation, therefore, should be omitted for an event which may involve a loss of life and which, with careful attention to detail, might be avoided.

Presented at the joint convention of the Alberta Hospital Association and the Alberta Municipal Hospitals Association, Calgary, 1938.

Are Our Hospitals Receiving the Best Possible Fire Insurance Rates?

(Continued from page 42)

cerned that cannot help but command recognition when demands are made for substantial premium reductions.

* * *

The following resolution was passed by the Saskatchewan Hospital Association following Mr. Thompson's address at the November, 1938, meeting:

Resolved, that the Saskatchewan Hospital Association request the Provincial Government to establish a permanent Insurance Commission with powers:

1. To assemble information relative to the cost of insurance of different classes and risks within the Province;
2. To act as a Board of Arbitration in the adjusting of disputes appertaining to premium rates.

The National Building Code

(Continued from page 45)

accordance with the technical requirements of the Canadian Electrical Code.

The keynote of all the committee work is that there shall be no limitation of materials or their application that is not justified on technical grounds to the satisfaction of the committee members. This is the best assurance that the adoption of this code in any municipality will not place any legitimate product at a disadvantage. Further, by enunciating and maintaining principles rather than detail of construction, the committees leave the way open for all legitimate development of the future.

Abstracted from The National Building Code, presented by A. F. Gill at the Canadian Construction Association Convention, Winnipeg, 1939.

Patients Moved to Safety in Montreal Fire

Seventy patients were safely removed from Sisters of Providence hospital in Montreal, when a fire almost destroyed the building, on February the 21st. The hospital was a 17-year old building which had been originally used as a clubhouse and which had been converted into a hospital 12 years ago.

**Canadian Hospitals from Coast to Coast
are now using**

"CARBONITE WHEELS"
On Bed Casters



Write for particulars and prices to

CALLARD & COMPANY LIMITED

Canadian Distributors

MONTREAL

TORONTO

WINNIPEG

News of Hospitals and Staffs

British Columbia Hospitals Act to be Revised

THE provincial government has announced that the British Columbia Hospitals' Act will be completely revised and modernized before the next session of the Legislature. Dr. George F. Davidson who, on March 1st, took over as the Director of Social Welfare, will conduct investigations on which the revision will be based. The British Columbia Hospitals' Association will be consulted regarding the revisions, along with the provincial Medical Association and the Union of British Columbia Municipalities.

* * *

New Wing of Rossland Hospital, B.C., Opened

The formal opening of the new \$90,000 wing to Mater Misericordia Hospital, Rossland, B.C., took place on February the 12th. A \$15,000 Nurses' Home was recently opened.

* * *

Sanatorium Addition Now Occupied

First patients were moved into the newly completed wing to the Fort William Sanatorium on January the 30th. The new wing, constructed at a cost of \$140,000 will accommodate 105 patients.

* * *

Calgary Studying Group Hospitalization Plans

Calgary City Council has appointed a committee to

study the possibility of a group hospitalization plan for the city.

* * *

Red Cross Outpost Hospital Opened in Saskatchewan

A new Red Cross Outpost hospital has been opened at Pierceland, Saskatchewan. The six-bed hospital will serve a settlement of some 1,300 people and an Indian reserve nearby. Formerly the district was served by the hospital at Cold Lake, Alberta, which is thirty-one miles distant.

* * *

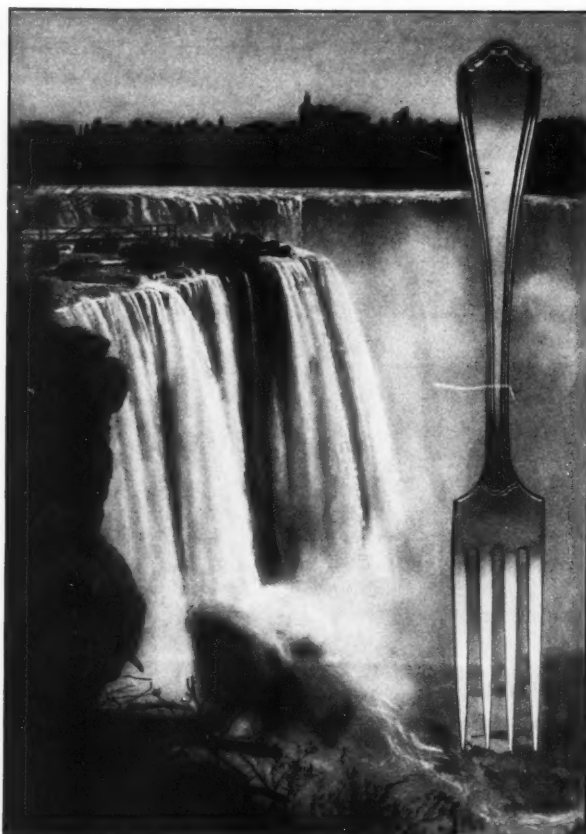
Western Hospital's Work to be Dramatized on the Air

Vancouver's mayor, Dr. Lyle Telford, has announced that the work of the Vancouver General Hospital will be featured in a series of broadcasts included in the regular civic radio forum schedule to be presented in the near future. Dr. Telford, after a recent inspection of the hospital, promised that he would try to inaugurate a modified form of health insurance for the provision of hospital care in Vancouver.

* * *

Nurses' Residence Opened at Port Arthur, Ontario

The Nurses' Residence of the Port Arthur General Hospital was opened on February the 8th. Two floors of the three-storey building have been finished at a cost of \$47,000 and will accommodate 36 nurses. Finishing of the third floor, which the hospital board hopes to undertake



A TORRENT OF POPULARITY

By virtue of its enduring beauty, utility and economy, Niagara King's Plate enjoys a sustained torrent of popularity in hospitals and other institutions. A member of the great all-Canadian "King's Plate" line. Full particulars and prices immediately on request.

NIAGARA KING'S PLATE

by

McGLASHAN CLARKE LIMITED
NIAGARA FALLS - - ONTARIO

Toronto Office: 605 C.P.R. Building

within the next two years, will provide accommodation for 19 nurses.

* * *

Accommodation Increased at Welland County General Hospital, Ontario

The newly completed second floor of the east wing at the Welland County General Hospital, Welland, Ontario, was opened on February the 2nd. At the ceremony a plaque was unveiled in memory of the late Mr. and Mrs. W. W. Near, whose bequest of \$25,000 made possible the completion of the floor.

* * *

Saskatchewan Hospital Re-opened

The Mitchell Memorial Hospital at Carrot River, Saskatchewan, has been re-opened. Miss A. Killen, R.N., is now in charge.

* * *

Gadgets to be Featured at September Convention in Toronto

May we remind you that the gadget exhibit will again be a feature of the American Hospital Association Convention which is to be held in Toronto next September. Of last year's exhibit it was said, "of all the costly and elaborate displays of merchandise on the exhibit floor, nothing attracted more attention than the gadget show". This is a feature of the convention to which all hospitals may contribute and it is hoped that Canadian hospitals will be well represented among the exhibitors.

Appointments and Resignations

Miss Isobel Smith, a graduate of Vancouver General Hospital, will be the matron in charge of the Red Cross Hospital at Zeballos, B.C., which is to be opened in April.

* * *

Miss Marie L. DesBarres, who has been assistant superintendent of the Montreal Unit, Shriners' Hospital for Crippled Children, for some years, has resigned to become superintendent of the hospital for crippled children which is being built at Wilmington, Delaware.

* * *

Dr. C. N. Crang, formerly of St. Michael's Hospital, Toronto, has been placed in charge of the X-ray department of St. Joseph's Hospital, Sudbury, Ontario.

* * *

Miss Georgia Brown has been appointed matron and X-ray technologist at the Prince County Hospital, Summerside, P.E.I., replacing Miss Florence Lavers, who has resigned.

* * *

Miss Mary B. MacKinnon, R.N., has been appointed supervisor at the New Waterford General Hospital to succeed Mrs. Neil Lamont, formerly Miss Ella Johnston, who resigned to be married.

* * *

Mrs. A. G. Woodcock, who has been superintendent of Victoria Public Hospital, Fredericton, New Brunswick, since 1930, has resigned.

MARCH, 1939

YOU GET MORE
CRACKERS TO THE POUND
in flakier,
tastier



Plain or
Salted

Christie's Premium Soda Crackers should enjoy a preferred position in your purchasing list because of their **quality** and **economy**.

You cannot ask for better biscuit quality, than to ask for

**Christie's
Biscuits**

"There's a Christie Biscuit for every taste"

BUILD-UP FOOD

By virtue of its outstanding nutritional value, high digestibility and appetite-provoking flavor, Vi-Tone enjoys nation-wide commendation as a build-up food. Non-acid forming—eminently recommended for invalids and convalescents.



VI-TONE

FOOD — TONIC — BEVERAGE

Small Hospital Plans

Prepared by the
Department of Public Health,
Alberta.

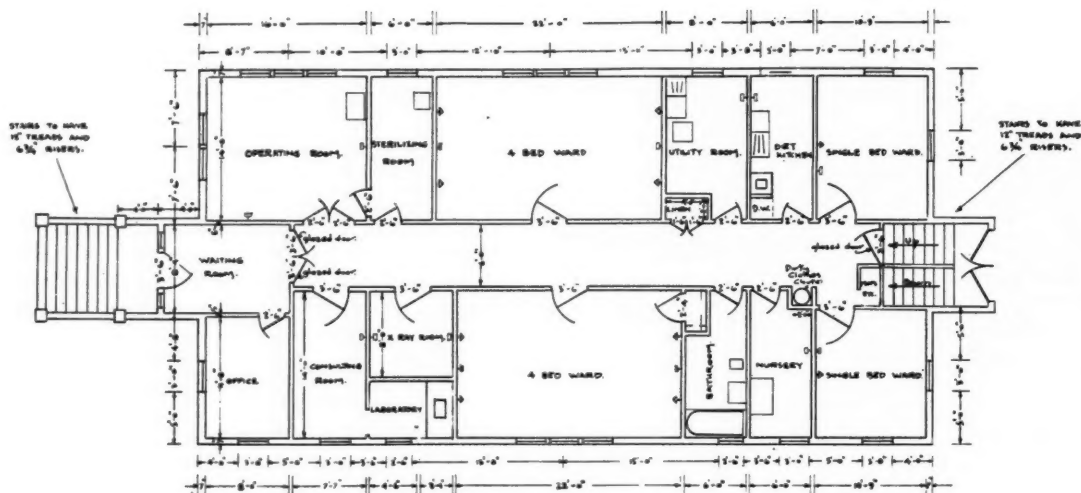
Ten Bed Hospital



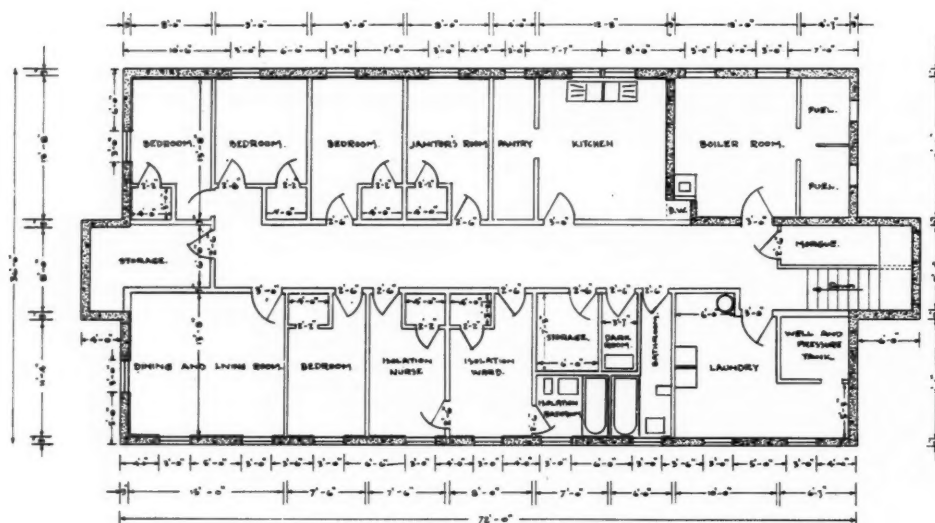
FRONT ELEVATION



MAIN DOOR ELEVATION



PLAN OF MAIN FLOOR.



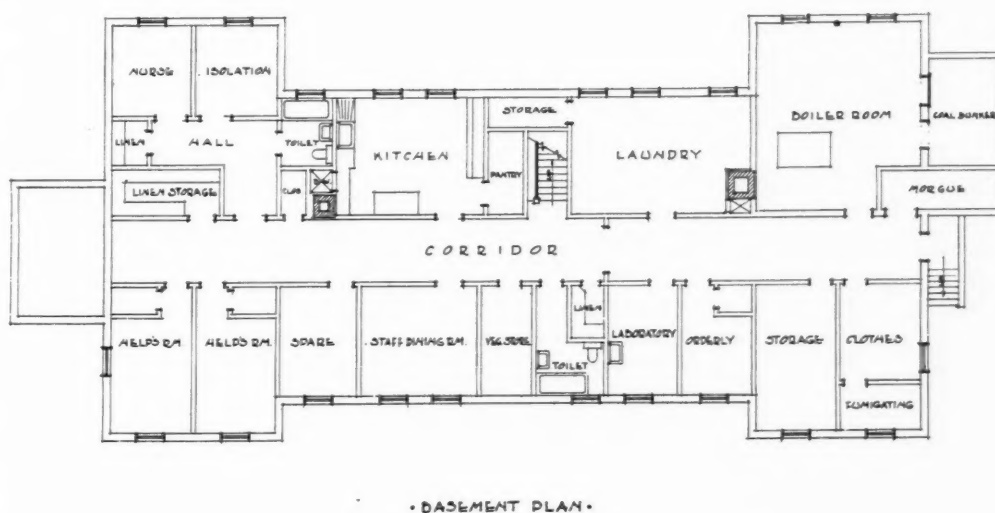
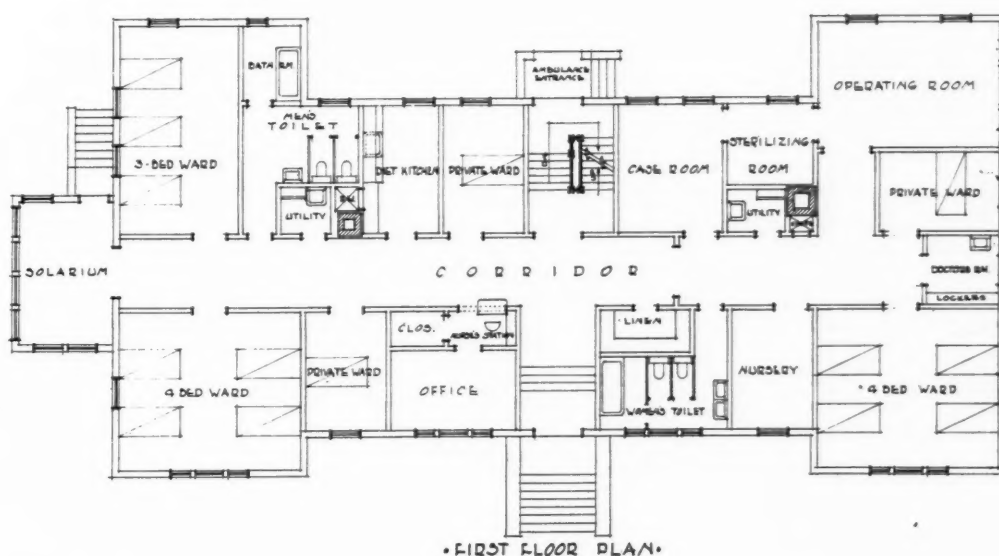
PLAN OF BASEMENT FLOOR.

Small Hospital Plans

Prepared by the
Department of Public Health,
Alberta.



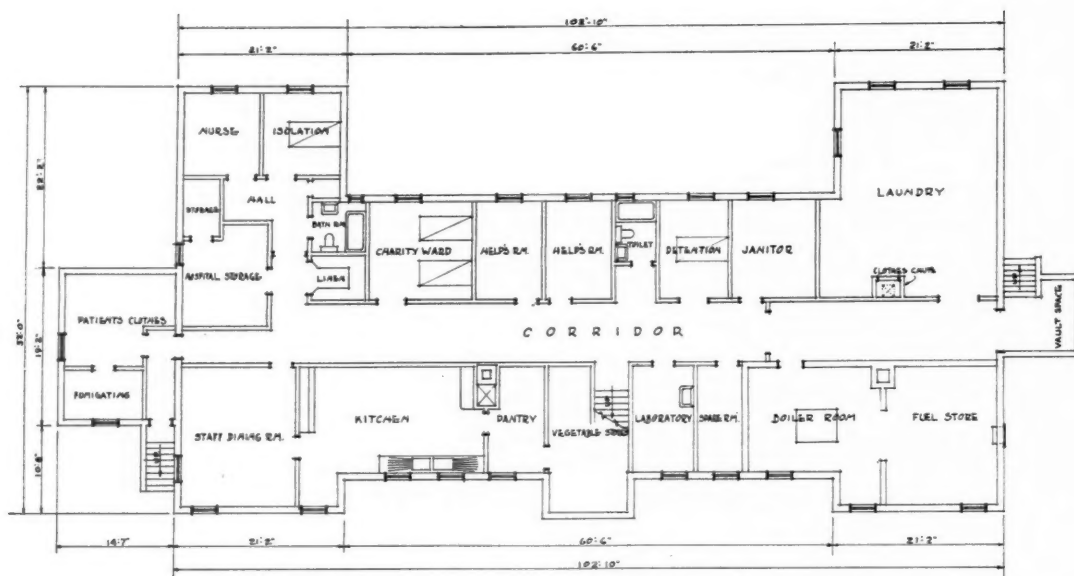
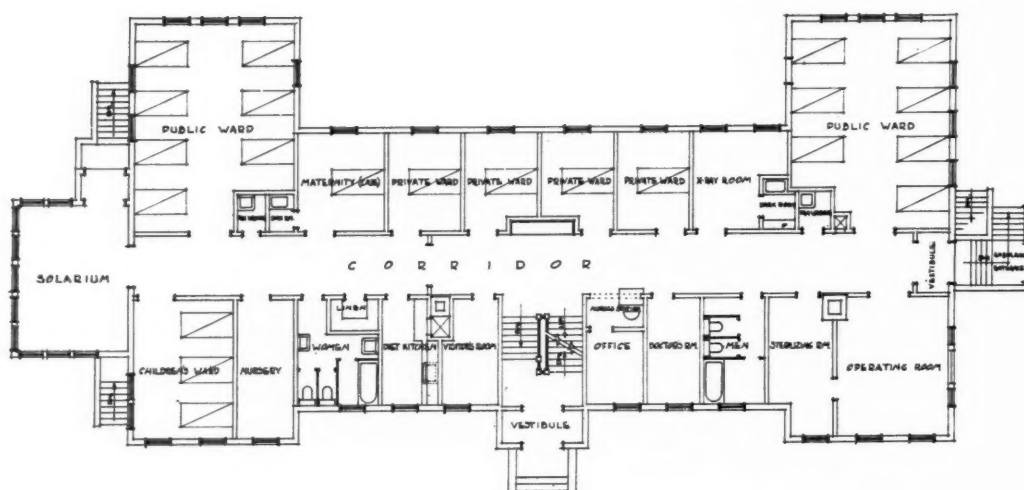
Fifteen Bed Hospital



Twenty-five Bed Hospital



Prepared by the Department of Public Health,
Alberta.



PRESTO!

Just like
Magic . . . your
Tray Service
is
Transformed
with

GH Wood's

Embossed

Paper Doilies

and

TRAY COVERS



Wood's offer a distinct buying advantage to hospitals and institutions. They are the only company making Lace Paper Doilies in Canada and, through production savings and eliminations of customs duty charges, can sell first quality Doilies at the lowest prices.

Hospital Purchasing Departments are invited to write for samples and interesting quotations.

The Wood's line covers a wide range of designs, duplicating fine linen and rare lace patterns. They will give individuality to your tray service and **SAVE MONEY**. Write today for full information.

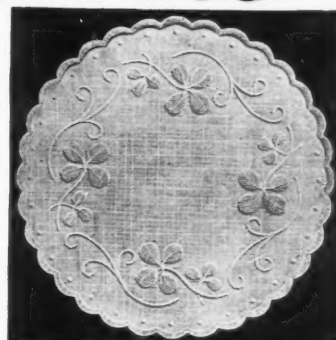
**G. H. Wood & Company
Limited**

Factories, Laboratories and Main Offices:

323 Keele St., Toronto

440 St. Peter St., Montreal

Branches: Vancouver, Edmonton, Winnipeg, Windsor, London, Hamilton,
Ottawa, Quebec, Saint John, N.B., Halifax.



Wood's lace and linenized paper doilies
available in 4, 5, 6, 7, 8, 9, 10
and 12 inches.

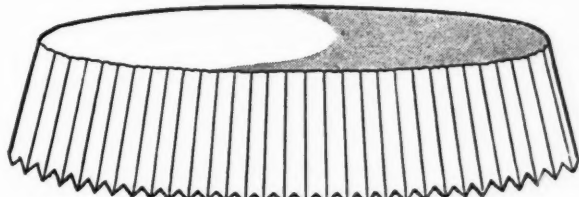
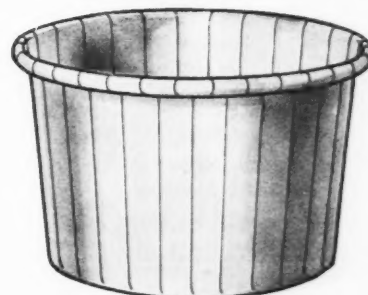


Illustration is ACTUAL SIZE

TUMBLER COVER



Wood's SOUFFLE CUPS

For individually serving Jellies, Jams, Relishes,
Vegetables, Puddings, Frozen Desserts, etc.
Available in seven sizes.

The Importance of Air Conditioning in Hospitals

By CLEMENT C. CLAY, M.D.,

Medical Assistant to Director, University of Chicago Clinics

THERE is a mass of literature on the subject of air conditioning in hospitals and one cannot doubt that the topic is of the greatest importance. One writer has made the interesting observation that the average individual eats about $3\frac{1}{2}$ pounds of food daily and that that same individual breathes approximately 35 pounds of air each day. He states, moreover, that about 40% of one's energy is derived from food while approximately 60% is derived from air. (Hospital Management 41:20, May, 1936 — Howard E. Bishop). Since air plays so great a role in the life of everyone, due consideration must be given to its quality and this is especially so in the case of an ill person who requires assistance from every possible source to regain his health.

The American Hospital Association has had a committee following the development of air conditioning very actively since 1933. This significant statement was contained in the report of that committee for 1937:

"There was a unanimous feeling by all commentators that there is a definite need of air conditioning in hospitals. Very few felt, though, that the time had arrived when air conditioning of the hospital in its entirety was advisable, except in rare instances. All agreed that when a hospital was in a position to install air conditioning that the operating room, birth room, nursery, and special therapy rooms were the divisions to which it should be applied. Every hospital that is in a position to do so should install air conditioning in the units where it seems most essential and accurately study the benefits obtained so that the hospital world will have definite information on which to base air conditioning programs in the future.

"Many hospital administrators have feared that ill effects would be encountered by the patients and personnel moving from air conditioned to non-air conditioned divisions. The committee was unable to find that such was true. All replies to our inquiry on this subject indicated that no ill effects had been suffered by either the patients or the personnel." (Transactions, American Hospital Association, 1937, P. 62-63).

"At present, the important therapeutic uses of air conditioning include cooling of operative and post-operative rest rooms; institutional care of premature infants; heat therapy; oxygen therapy; air filtration for relieving sufferers from hay fever and asthma, and warm weather cooling to treat and prevent fever, enteric disorders, heat stroke, and a wide variety of other ailments that accompany summer heat waves." (Modern Medicine, May, 1938, P. 38, C. P. Yaglou).

Reduction of Bacteria—DeLamar of the Institute of Public Health has made studies which indicate that

(among the enclosed spaces tested) alpha haemolytic streptococci are found in greatest numbers in crowded school rooms, while the numbers are smallest in air conditioned theatres. Doctor A. J. Hockett of Touro Infirmary, New Orleans, has made the following comment: "In our preliminary tests on the sterility of the air, the bacteriological counts in the air for each operating room before air conditioning and afterward, indicate a diminution in the number of bacteria in the air of over 60 per cent." (Transactions, American Hospital Association, 1936, P. 315).

Lord Lister of England gained fame for his magnificent work in developing the antiseptic technique in surgery. He introduced a fine spray of phenol solution over the operative field to kill any organisms which might be present. Later, it was found that drapes, instruments, garments of surgeons and nurses, et cetera could be sterilized before the operation commenced and the phenol spray was eliminated. In this aseptic technique it is assumed that no germs are introduced into the wound. Modern surgery kills the bacteria, in other words prior to the time of operation, and keeps the surgical field free from them during the operation by the use of face masks and other precautions. It is evident that the introduction of purified air into the operating room will make the aseptic technique even more perfect. There is a distinct possibility that germicidal solutions may be used in the washing of the air during the process of "conditioning".

Prevention of post-operative collapse—Moscowitz discovered some twenty years ago that deaths following surgical operations were more common during summer heat waves than in cool weather. He observed that the symptoms preceding death were identical with those of heat stroke. Subsequently, it became customary in certain localities, at least, to perform only emergency operations during exceedingly hot weather. Air conditioning protects the patient against loss of body fluids before and after as well as during the operation and, hence, surgical shock and other hazards are lessened. At the University of Chicago Clinics there have been no cases of post-operative collapse due to heat since the air conditioning unit was installed.

Prevention of anaesthesia hazards—Many individuals have labored under the delusion that only ethylene is a dangerous anaesthetic gas as far as explosions are concerned. In an article appearing in the "New England Journal of Medicine" (Vol. 208, No. 18, May, 1933), Doctor Lincoln F. Sise added his plea to those of many other anaesthetists for recognition of the explosibility of nitrous oxide-ether mixtures. This combination of anaes-

(Continued on page 100)

In 2 Months

10

NEW "AGA" HOSPITAL UNITS



● Since the first of the year 10 more hospitals have installed new Aga cookers. The Aga is an amazing invention. It was designed by a famous scientist for his own use. It is the only cooker in the world that gives you such a low **GUARANTEED FUEL COST.**

The Aga burns day and night—is always ready for instant use. It will boil a pint of water in 60 seconds. It bakes perfectly. It is ideal for roasts—leaving them juicy and full-flavoured. It cuts down shrinkage of meats and vegetables. Food cooked on an Aga cooker has a richness and goodness that is different and delightful. Most important—the Aga can save you money. Whether your present kitchen equipment is obsolete or not we guarantee savings with an Aga. Profit from the experience of leading institutions in Canada and throughout the world.

Write for details.

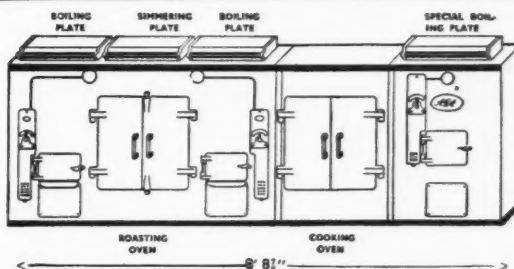
AGA HEAT (Canada) LIMITED

34 BLOOR STREET WEST - TORONTO
638 DORCHESTER ST. WEST - MONTREAL, QUE.
1276 HOWE STREET - VANCOUVER, B.C.

▲

Hotel Dieu Hospital	- - -	Cornwall, Ont.
Ross Memorial Hospital	- - -	Lindsay, Ont.
Canadian Mothercraft Hospital	-	Toronto, Ont.
Belleville General Hospital	- -	Belleville, Ont.
Prince Edward County Hospital	-	Picton, Ont.
Pottinger Nursing Home	- - -	Victoria, B.C.
Saint John Tuberculosis Hospital	-	Saint John, N.B.
Vegreville General Hospital	-	Vegreville, Alta.
St. Joseph's Hospital	- - -	Saint John, N.B.
St. Mary's Hospital	- - - -	Toronto, Ont.

▼



Features of Aga Model H.123

(A popular model in the series.) A Huge Roasting Oven (18" x 18" x 20" deep), ready day and night, capable of cooking at one time 80 lbs. of Sirloin or 18 Chickens or 28-30 lbs. of bread. A cooking oven, of the same size, heated by a separate fire, for slow cooking and plate heating. Very Large Hot-Plate Area (7 1/4 sq. ft.), consisting of three fast boiling plates for fast boiling, deep French frying and grilling; one simmering plate. Extremely Even Temperatures. Draught Stabilisers, Automatic Thermostat Control, etc.

GUARANTEED MAXIMUM FUEL COST \$120 A YEAR (on coke or anthracite.)

(Based on coke or anthracite at \$12.00 a ton.)

AGA heavy duty COOKERS

Analgesics and Hypnotics as Ordered in Hospital

From an Address by

WILLIAM S. GARDNER, M.D.,

Professor Emeritus of Gynaecology, University of Maryland

(Note: At the request of one of our hospital administrators, this excellent analysis of how hospitals can save or spend money in their pharmacy, is digested from the Maryland Pharmacist and the Canadian Pharmaceutical Journal.)

AFTER reading an article by Dr. Fantus on "Economy in Medication" I thought it would be interesting to see what was being prescribed as analgesics and hypnotics at Mercy.

Dr. Fantus states that *acetanilid* is not only the most efficient, but the cheapest analgesic. At Mercy in over one thousand orders, there was not one order for *acetanilid*.

Acetanilid was introduced as a competitor of antipyrine which had been put out as the great remedy for the cure of all fevers. The dose of antipyrine was 15 to 20 grains repeated every hour until the fever came down. *Acetanilid* was given in doses of about half of that of antipyrine and repeated in the same way. Dr. Fantus says:—"Acetanilid labors under the indictment that it causes methemoglobinemia and collapse. This is possibly true when it is used as it formerly was in the full antipyretic dose of seven and one-half grains and when repeated every hour for two or three doses until a great fall of temperature was secured." But the day of the antipyretics is over. No one prescribes anything to directly reduce temperature.

Very good evidence that *acetanilid* is not a very dangerous drug, is the fact that in this town, tons of it have been swallowed in the past forty years in Bromo Seltzer, and the town has not yet been depopulated. It is everybody's remedy for the headache of the cold gray dawn of the morning after.

In other words, it is efficient and is widely used; but the younger doctors have never learned about it. This is largely due to the fact that it is not touted by the present day instructors in therapeutics, the detail men. Its virtues are not sung in the voluminous literature of the manufacturers of proprietary medicines. It costs too little.

Aspirin was ordered 49 times alone and 119 times in combination with codeine; in all 168 orders. Not a single order of Acetylsalicylic acid was written. Aspirin Bayer costs 75 cents an ounce. Acetylsalicylic acid costs 13 cents an ounce. This drug in its cheapest form costs four times as much as *acetanilid* and as aspirin it costs 23 times as much.

Codeine was ordered alone 165 times and with aspirin 119 times, making a total of 284 orders for codeine. Except as a constituent of cough mixtures, there is very little excuse for the use of codeine. It is safe, but its safety is in proportion to its inefficiency. My own reaction to it for many years has been that its use to relieve pain was very much like sending a boy to do a man's job.

Its index-price cost is 65 times that of *acetanilid* and about four times that of morphine. If the patient has a really severe pain, don't send the boy but send the man—morphine. Relieve the patient and save money.

Morphine was ordered 169 times. Morphine is unquestionably the king of pain relievers. When there is severe pain it should be given promptly and in a dose sufficiently large to give prompt relief. The order frequently written to repeat the dose if necessary is a bad custom. Very few nurses have had enough experience to judge whether the repetition is necessary. The intern should see the patient and determine whether more morphine is needed.

It is the custom of many surgeons to give a dose of morphine before an anesthetic and another one on partial recovery from the anesthetic. The dose before may make the starting of the anesthetic slightly easier and the dose on reaction may keep the patient more quiet for a time; but the patient immediately after an operation is usually not in pain, but only more or less drunk from the anesthetic. The result following these two doses is nausea and vomiting for the next twenty-four hours. This post operative nausea is usually attributed to the anesthetic, but in most instances it is due to the morphine.

Pantopon was ordered 79 times. *Pantopon* is not an official preparation. It is a mixture of all the alkaloids of opium, but depends for its efficiency as an analgesic on its morphine content which is about 50 per cent. The ordinary dose is one-third of a grain which corresponds to one-sixth of morphine. *Pantopon* costs \$20.00 per ounce; morphine \$12.75 per ounce. But as it takes two ounces of *pantopon* to equal one ounce of morphine, the relative costs are as 40 to 12.75. That is one dose of *pantopon* costs over three times as much as a dose of morphine that would do the same work.

Phenacetin was ordered 14 times. The same drug under its chemical name, acetophenetidin, was not mentioned. Phenacetin is not so efficient as *acetanilid* and costs per dose about 21 times as much, or to put it graphically one dollar's worth of *acetanilid* will furnish as many doses as seven dollar's worth of acetophenetidin, or twenty-one dollar's worth of phenacetin.

Atophan was ordered 12 times by its proprietary name; by its chemical name cincophen not once. *Atophan* costs \$2.75 per ounce; cincophen costs 38 cents. They are exactly the same thing.

Chloral Hydrate was ordered 60 times, but as two patients got twenty-six of these doses, there were only thirty-four among all the remainder.

Dr. Fantus puts chloral first among the hypnotics be-

cause of an efficiency index of 97 and an efficiency price index of one. To put the same statement in another way—the cost per dose is the least and the results obtained are the best.

Luminal and *phenobarbital* were ordered 239 times. Of these orders 221 were for luminal, the proprietary name, and eighteen were for phenobarbital, the chemical name. Luminal costs \$6.90 per ounce; phenobarbital costs 61 cents per ounce. They are exactly the same thing; but luminal costs the hospital eleven and one-third times as much as phenobarbital.

The barbituric acid compounds are classed both as analgesics and as hypnotics.

As a hypnotic, phenobarbital has a dose price index of 8 compared to chloral hydrate as 1. As an analgesic it has a dose price index of 45 compared to acetanilid at 1.

Since luminal costs eleven and one-third times as much as phenobarbital, to get the index cost price of luminal multiply the index cost price of phenobarbital by eleven and one-third which makes the index cost price of luminal 90 as an hypnotic as compared to chloral as one. Using the same method, we find that the index cost price of luminal as an analgesic is 510 as compared to acetanilid as 1.

In other words, one dollar's worth of chloral hydrate will produce as much sleep as eight dollar's worth of phenobarbital or ninety dollars worth of luminal.

One dollar's worth of acetanilid will relieve as much pain as forty-five dollar's worth of phenobarbital, or 510 dollar's worth of luminal.

Amytal was ordered 23 times and *Sodium Amytal* 25 times. The dose price index of *Amytal* is 17 and that of *Sodium Amytal* is 40.

Nembutal was ordered 58 times. It is advertised as a pure hypnotic. The ordinary dose costs three and one-half cents. Five grains of chloral hydrate costs less than two-tenths of a cent.

There is another hypnotic that I have used for years with excellent results. Many postoperative patients during convalescence who are without pain are not able to get to sleep promptly. With supper at five o'clock, by nine-thirty the stomach is empty and the patient restless. She calls for relief. The intern comes along and orders luminal, when what she really needed was a glass of milk and a few crackers. The actual cost of the dose of luminal and the glass of milk are practically the same; but for the patient the milk is far better.

When we see 791 orders out of a little over a thousand, or nearly 80% for codeine, luminal or aspirin, it is apparent that there is an over use of these drugs and a failure

to use much more efficient drugs that are very much cheaper.

Who is responsible for this extravagant and illogical system of therapeutics? Primarily the teachers of therapeutics in the medical schools are to blame; but the real responsibility lies with the visiting staff. They are sup-

posed to direct and be responsible for all medication; but when it comes to analgesics and hypnotics the decision as to what to use is too often left to the intern.

To sum up:—The routine prescribing for the relief of pain can be much simplified and made more efficient, and the cost to the hospital very much reduced. As an antineuralgic, acetanilid in 3 grain doses. Pain due to contusions or infections, morphine; as an antirheumatic acetyl-

salicylic acid; to relieve bronchial irritation, codeine.

As a hypnotic chloral hydrate is the most efficient and the cheapest. The pharmacopeial dose is .5 gm. or 7½ grains. Dr. Fantus thinks that this dose is three times too much, as sleep was produced in nearly 100 per cent. of cases by 2¼ grains. The dose usually ordered at Mercy is 5 grains. There is no hangover the next day.

If you must use a barbituric acid preparation, learn something about barbituric acid which has an efficiency index of 94, the highest of the group and costs less than phenobarbital. If you must have phenobarbital prescribe it under that name, not as luminal.

Within the past hundred years many books on *Materia Medica* and *Therapeutics* have been published. Many pages of them are filled with the laudation of the virtues and uses of drugs that now are as dead as the dodo; but a few things in each book have survived on their merits and will continue to survive. The present generation pays little attention to the books, but gets its knowledge of therapeutics from the persuasive voice of the detail man and from the flood of literature from the manufacturing chemists. While a few of these new drugs will survive, it will be only a matter of time until the vast majority of these wonderful cure alls will be in the same class as the sulphur bag that was worn suspended from the neck to prevent smallpox. A drug is not necessarily good because it is new, and is not necessarily bad because it is old.

Speaking of ancient notables who were interested in the gentle art of healing, we have learned in our random reading that Henry VIII was a pharmacist and had a little laboratory where he amused himself mixing medicines, in the intervals between mixing marriages.—*Hospital Topics*.



"Jingle Bells!" A special treat for patients at the St. John's Convalescent Hospital, Newtonbrook, Ontario.

The Importance of Air Conditioning in the Hospital

(Continued from page 96)

thetic agents is used in practically every hospital to-day. Doctor Sise mentioned a number of appalling cases. In one, a patient was undergoing an abdominal operation under the above anaesthetic mixture. An "electric knife" was used. An explosion occurred and it seemed to be mainly in the patient's lungs; for the mask was lifted from his face. The patient died soon afterward (Journal of the American Medical Association, 96:534, Feb. 14, 1931). Such explosions may be prevented by proper grounding of all apparatus and the patient to prevent the formation of static sparks; by the elimination of unprotected electric equipment; and, primarily, by the control of the relative humidity of the operating room (at or above fifty-five). Phillips of the University Hospitals in Cleveland made the following statement in "The Modern Hospital", Vol. 46, Nos. 4 and 5 (1936): "Complete air conditioning is expensive and yet for operating rooms it is difficult to conceive of a more thoroughly justifiable expenditure. It provides a safeguard against the anaesthesia explosion hazard for which there is no substitute."

Yaglou, in the article cited above, said: "Premature infants must literally be incubated if they are to survive. In nurseries for the institutional care of premature infants, the requirements for humidity are so rigorous that they can only be maintained by the use of air conditioning systems. Extensive research demonstrates that a relative humidity of about 65% results in a great reduction in the incidence of respiratory and gastro-intestinal diseases and

improves the infant's chances for life. In extensive studies at the Boston Infants' Hospital, it was shown that low humidity, of the order of 30% to 50%, disturbed the equilibrium of body temperature, diminished gains in weight, increased incidence of diarrhea, and raised mortality."

Two other writers have summarized the case for air conditioned nurseries, as follows:

"Prematurity is the most common single cause of infant deaths. The premature infant is unable under ordinary conditions to maintain his temperature equilibrium, and he is very liable to both gastro-intestinal disturbances, and to respiratory infections. The same may be said of weak babies. It has been demonstrated that it is practical to condition air in such a way that these dangers are materially reduced, and gains in weight and other signs of good health are increased.

"The cost of air conditioning is relatively high, but the excellent results that can be obtained in the care of premature and weak infants make air conditioned nurseries a necessary part of all large infant hospitals, of large maternity hospitals, in localities where climatic conditions are not exceptionally suitable for premature infants." (Wang and Foster, The Chinese Medical Journal, 51:1033-38, June, 1937).

Trasoff and Burnstein, among others, believe that an air conditioned atmosphere is of very definite value in the treatment of seasonal asthma due to pollen. (Journal of Laboratory and Clinical Medicine, 22:147-150, November, 1936).

Conclusion

Howard E. Bishop, Superintendent of the Robert E. Packer Hospital in Sayre, Pennsylvania has given these objectives for air conditioning in hospitals:

"1. To provide a more comfortable atmosphere for doctors, patients, and nurses, making for the improvement of health and efficiency.

"2. To provide for the removal of objectionable odors and for the necessary ventilation.

"3. To provide and maintain for operating rooms a relative humidity of 55% or higher, which will eliminate danger of explosion from a static spark during the use of various anaesthetics.

"4. To provide air that is as free as possible from dust and dirt particles.

"5. To make it possible to keep all windows closed and thus keep out dirt and noise and eliminate draughts." (Hospital Management, 41:20-22, May, 1936).

Several of the writers quoted above have mentioned the great expense of air conditioning installations. It is that very expense which prevents many institutions from purchasing and using air conditioning equipment at the present time when grave financial problems are confronting them. Therefore, anything which increases the expense of operation of such equipment makes it still more difficult for hospitals to provide funds for these installations which are already of such great importance to the welfare of the sick public.

Reprinted from the Hospital Council Bulletin, Official Publication of the Chicago Hospital Council, December, 1938.

The MACMILLAN COMPANY OF CANADA, LIMITED

70 Bond Street

Toronto

Invite you to visit Booth 3

Registered Nurses of Ontario Convention

APRIL 13 - 14 - 15

Royal York Hotel, Toronto

BAILEY—NURSING MENTAL DISEASES

New Fourth Edition to be published in April.

FROST—SOCIAL ASPECTS OF NURSING

Probably \$3.00

To be published this Spring.

THE NEW NURSING SERIES AIDS FOR NURSES

AIDS TO HYGIENE \$1.10

AIDS TO PRACTICAL NURSING 1.10

AIDS TO SURGICAL NURSING 1.10

BANCROFT, PIERCE, CUTLER—PEDIATRIC
NURSING 3.00

3rd Edition, 1938.